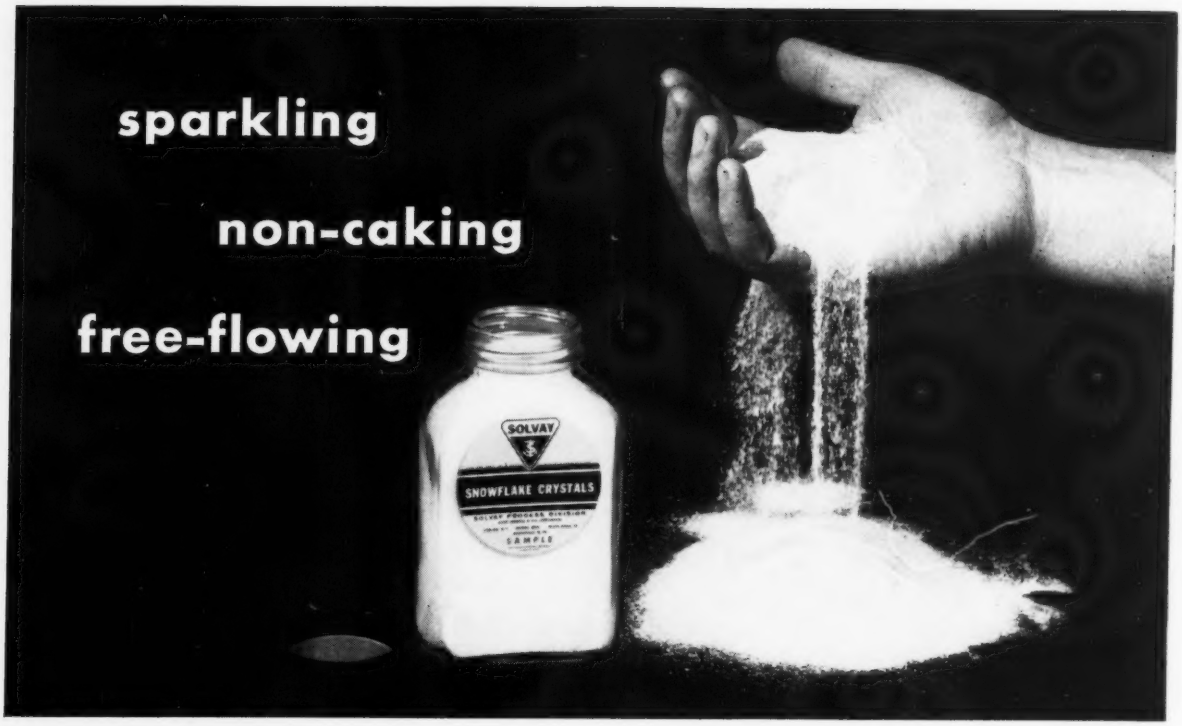
November, 1958

SOAP and CHEMICAL SPECIALTIES

On this issue...

Historic event in a setting to match takes place this month as Canadian Manufacturers of Chemical Specialties hold first annual meeting in Montreal. Maisonneuve, founder of the city, looks down from Place d'Armes, city square.



SOLVAY SNOWFLAKE CRYSTALS

No other form of alkali has all these advantages!

1. **sparkling**
2. **non-caking**
3. **free-flowing**
4. **dustless**
5. **highly soluble**
6. **quick dissolving**
7. **excellent water softener**
8. **active detergent**
9. **efficient buffer**
10. **excellent acid neutralizer**
11. **adds bulk**

Your product or process may benefit from 11 *important features* combined in Snowflake Crystals and Snowfine, SOLVAY's two superior forms of sesquicarbonate of soda.

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***SOLVAY** branch offices and dealers are located in major centers from coast to coast.*

Allied Chemical

SOLVAY PROCESS DIVISION
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Please send me without cost:

☐ Snowflake Crystal sample ☐ Snowfine sample
☐ Snowflake fact book ☐ Data on how Snowflake can help my operation, described in attached letter.

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For High-Quality Cosmetic Products

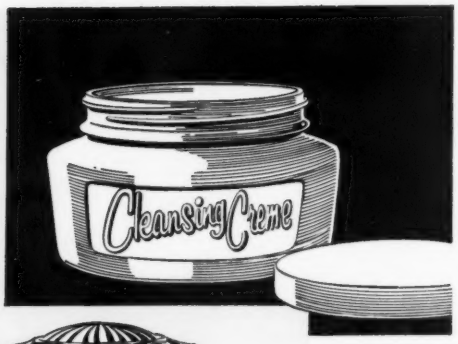
2 NEW ANTARA SURFACTANTS

IGEPON® AC-78

(A pure white, fine powder)

IGEPON® TC-42

(A creamy, pure white paste)



To enhance the character, originality and customer-acceptance of your premium cosmetics.

BAR SOAPS
BUBBLE BATHS
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CLEANSING CREAMS

These new Igepons are coconut-based detergents and yield products of high lather mild to the skin.

We suggest you investigate the possibilities of Igepon AC-78 and TC-42 in your premium cosmetic preparations. Free testing samples and complete information available upon request.

From Research to Reality

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ANTARA® CHEMICALS
A SALES DIVISION OF
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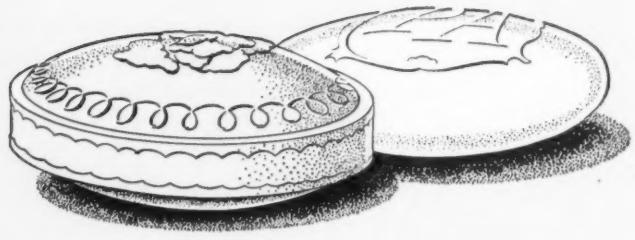
SALES OFFICES: New York • Boston • Providence • Philadelphia • Charlotte • Chattanooga • Chicago Portland, Ore. • San Francisco • Los Angeles. IN CANADA: Chemical Developments of Canada, Ltd., Montreal

Igepon AC-78 and TC-42, manufactured by General Aniline and Film Corporation, are sold outside the United States under the names FENOPON AC-78 and TC-42.



Volume XXXIV, No. 11 November, 1958

SOAP and CHEMICAL SPECIALTIES

CONTENTS

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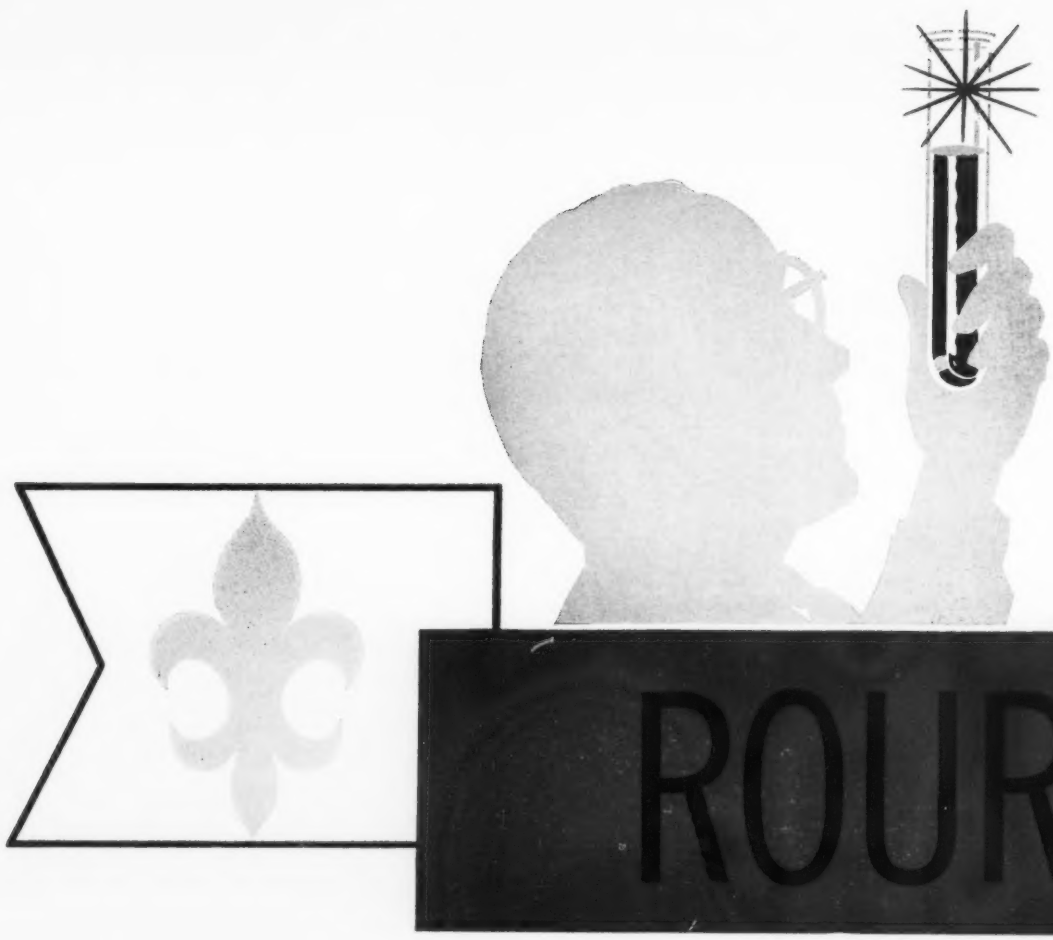

WORLD-WIDE RESOURCES
WORLD-WIDE SERVICES

Roure-Bertrand Fils, Grasse, and Justin Dupont, Argenteuil, France, as well as their facilities in North Africa, India, the Far East and South America, have for decades been prime processors of basic ingredients for the perfumers of the world.

Their creative genius is attested by the many proven international successes in the field of fragrance requirements . . . be it in the development of original perfumes, colognes, aerosols, cosmetics, soaps and other toiletries . . . or in the masking area where odors have to be covered rather than developed.

Roure-Dupont, Inc. technical staff is in a unique position to put its vast international facilities and know-how at your disposal.

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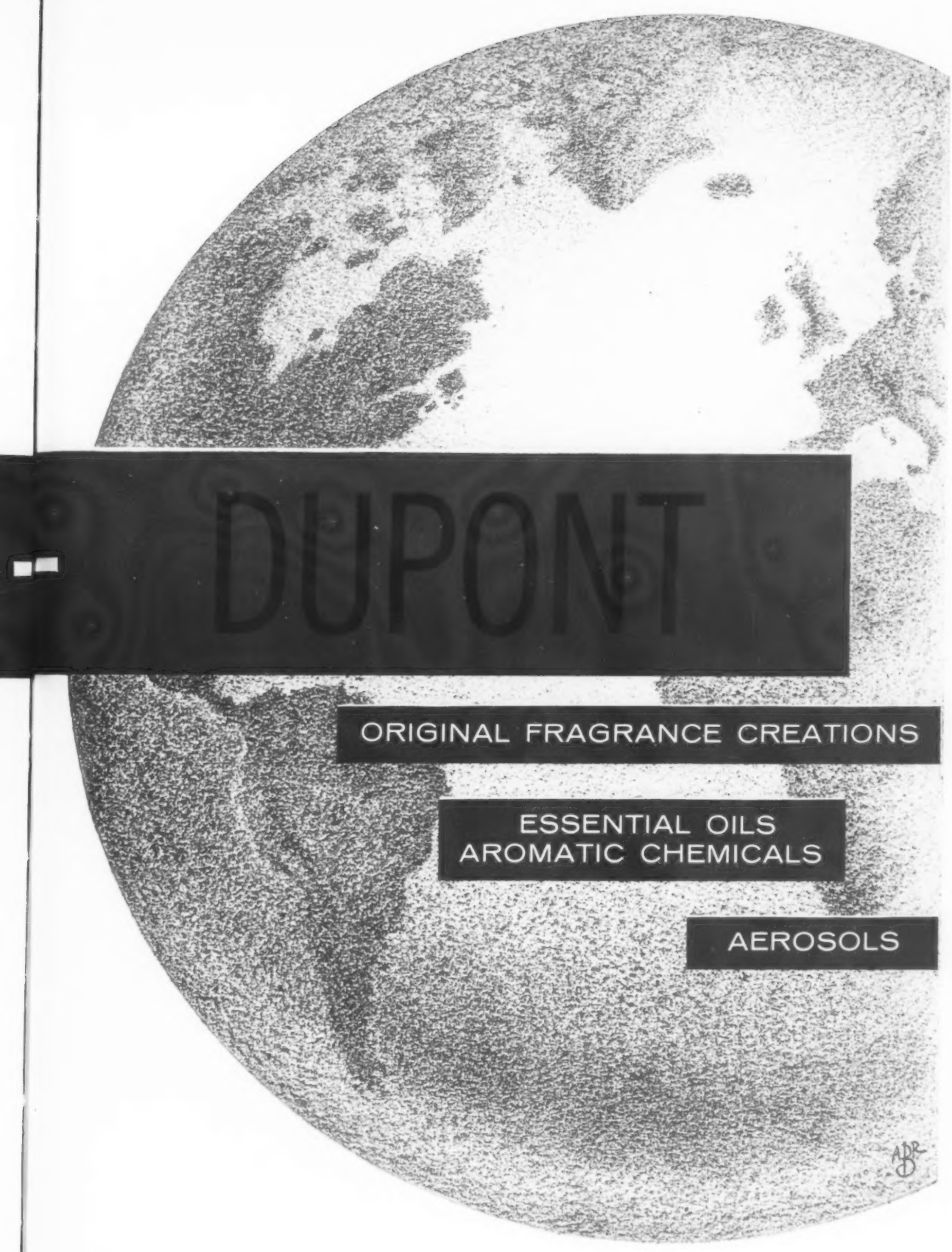
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ORIGINAL FRAGRANCE CREATIONS
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he'll help solve your solvent problems

This man is a Sinclair sales engineer. He is not on your payroll, but his job is to serve you in every way he can. His knowledge of chemistry and background in chemical engineering make him particularly qualified to offer you technical assistance on your solvent problems. Furthermore, he is prepared to discuss the advantages to you of Sinclair's full line of solvents and chemicals including—

Truly odorless solvents—SINCLAIR ODORLESS SOLVENTS, both Light (345-400°F) and Heavy (375-465°F), synthetically produced from carefully selected hydrocarbons to insure uniformity, stability and superior quality required by manufacturers. Available in transport trucks and full, or split tank car quantities from strategically located shipping points.

High purity aromatics—TOLUOL (1° nitration grade), XYLOL (5°) and 110 SOLVENT (320-353°F, KB92.3) produced by modern Udex extraction facilities. Available in transport truck and full, or split tank car quantities.

Your Sinclair sales engineer follows through. You can be sure that your orders will arrive at your plant exactly as specified—*and on time.* We are sure you'll benefit from a meeting with him. If you use odorless solvents or aromatic solvents, phone your Sinclair Representative or write:

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Affiliate of Sinclair Refining Company
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HOLDING THE MIRROR TO MOTHER NATURE!

Specialties FROM HAARMANN & REIMER

AGRUMEN ALDEHYDE A chemical body which strengthens and refines not only the fresh slightly green note, but also the characteristic and somewhat bitter nuance of the Citrus Oils in compounds. Also of great value in Pine compositions to strengthen and sweeten the Fir Needle note.

HESPERIDOL H5 . . . the tantalizing aroma of freshly peeled oranges.

LATYRON-A . . . the fresh, invigorating note of new-mown hay.

PINE TSFN . . . faithful reproduction of delicate deep-woods pine needle scent.

SPECIALTIES from LA BELLE FRANCE!

By J. and E. SOZIO, Grasse

ROSE HV: Compounded rose base processed by extraction in presence of flowers other than Rose de Mai.

ROSE HM: The same base and process, with Rose de Mai.

CHENIRAX: Soluble product of extraction of Mousse de Chene and Gum Styrax.

CHENAMBROL: Soluble product of extraction of Mousse de Chene and Ciste. Available also decolorized.

DISTIRIS: Reconstitution from fractions of natural oils other than Iris Butter, distilled over Iris Roots.

DISTIRONE: Reconstitution of Absolute Iris (Irone) odor in a mixture subsequently distilled over Orris Roots.

You are invited to send for samples of any specialties that interest you.

VERONA

VERONA AROMATICS

A DIVISION OF VERONA-PHARMA CHEMICAL CORP.

Plant and Main Office:

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For private brand resale buyers of waxes and kindred products

...Your Quality Guide

WATER EMULSION WAXES
Each of Candy's floor waxes are all-around top quality for certain traffic conditions. They impart the finest protection and beauty to floors for which best suited.

CANDY'S SUPREME (standard)
BRIGHT BEAUTY®
CANDY'S SUPREME Special WR
SUPER CAND-DOX®
CAND-DOX® #CS
CANDI-WAX #6000

All Candy's products are available for private brand resale and are sold only through distributors except for experimental accounts in Chicago essential to research.

Beauty and Durability

Initial appearance is important, but for a waxed surface to remain beautiful, it must be durable. Durability depends not only on resistance to abrasion of traffic, but even more so on resistance to discoloring marks. Durability should be measured by how long the waxed surface maintains a nice appearance before complete removal and re-waxing is required.

Anti-Slip

Anti-slip, or reasonable safety underfoot, does not mean that the qualities of beauty and protection need be sacrificed. The proper balance—a wax film which is not excessively slippery, yet which is not tacky and does not collect dirt readily—gives the performance that answers the foremost original reason for use of a floor wax...beauty and protection.

Water Resistance

Frequent damp mopping or wet traffic can make water resistance very important. Over-doing this quality when no problem exists out of the ordinary, simply increases the difficulty of complete removal or applying multiple coats. Removability must be considered as important as water-resistance under most normal conditions.

Solid Content

The percentage of solid content is not nearly as important as the **quality** of the solids. Good quality indicates 12% of solids as the answer for most well planned maintenance programs. Two applications of 12% gives better results than one of 18%. "Washed out" floors and other special problems maintain better when more concentrated waxes are used. Over-waxing and resultant greater difficulty in removal for periodic maintenance may do more harm than good.

Carnauba Wax

The most important features of a good wax...all-around quality of performance...are built around Carnauba Wax. When refined and compounded with other additives and scientifically controlled in manufacture, Carnauba alone imparts the beauty and protection that makes the use of floor waxes both profitable and possible. Make-shift manufacture or over-emphasis on any one given wax feature should be avoided and proper care taken to provide for most satisfactory performance.

Other HIGHEST QUALITY products of CANDY & COMPANY, Inc.

CANDI-COAT 1000, WATER RESIN EMULSION
As a floor coating for use under specific conditions of continued maintenance on certain types of floors this water resin emulsion has none of the faults associated with coatings of this type. It is the finest product in its class produced up to this time.

Bright Beauty WAX REMOVER & all-purpose SURFACE CLEANER
For removal of water-emulsion waxes from any floor without harmful effects. It is the perfect maintenance program wax remover and all-purpose surface cleaner. Pleasant odor, crystal clear color and thorough cleaning action with all types of equipment. Unaffected by hard freezing. Furnished ready for resale or in concentrated form for local packaging...nothing but water to buy or mix in.

Bright Beauty CREAM FURNITURE POLISH
A cream furniture polish that spreads easily, polishes without excessive effort to a deep impressive lustre. Permits *repeated repolishing* with a dry cloth, thus saving many re-applications. A very economical polish of the very highest quality.

Bright Beauty PASTE WAX
Properly blended and refined from excellent quality solids and solvents that produce the best drying time and evaporation. Easy to handle, having "creamy" consistency and stability that lasts throughout storage and usage life.

Bright Beauty LIQUID (spirit) PREPARED WAXES
A complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each acts as a "dry cleaner" to keep surfaces waxed protected with a superb coating necessary for many applications such as wood and certain other types of floors; for bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH
As a glass cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanliness to glass. As a cleaner of silver, it polishes to a high lustre *without* abrasion and can even correct the abuses of scratchy "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX
Does not "ball-up" and gather dirt that impregnates floors with hard spots difficult to remove...free from dusty effects. Its protective quality adds more "floor-years" to expensive ballroom floors.

Bright Beauty Heavy Duty PASTE CLEANER
Cleans and scours more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive qualities, it frees almost every surface from all foreign matter.

CONTAINER SILK SCREEN LABELING
Now you can have dramatic, colorful labeling of your private brand name on all *55, 35, 30, 20 & 15 gal.* drums and *5 gal.* pails. This added service is accomplished right in our plant...your inspection invited...or write for details.

Candy & Company, Inc
EST. 1891

Wax Specialists for over 65 years

2515 W. 35th ST., CHICAGO 32

• If you are a purchasing agent lining up a source for phosphates, it won't hurt to remember that there have been phosphate shortages in the past. And since phosphate sales have again resumed their long term growth pattern, this is a good time to seek out a supplier that stood by its regular customers during previous phosphate shortages.

• You'll find, if you make inquiry in the trade, that Blockson is such a supplier. We are able to stand by our customers because a substantial building program provides the stand-by capacity for sudden surges in demand.

• If this type of far sighted supply policy fits in with your own future plans, we would appreciate your inquiry.

OLIN MATHIESON CHEMICAL CORPORATION — BLOCKSON

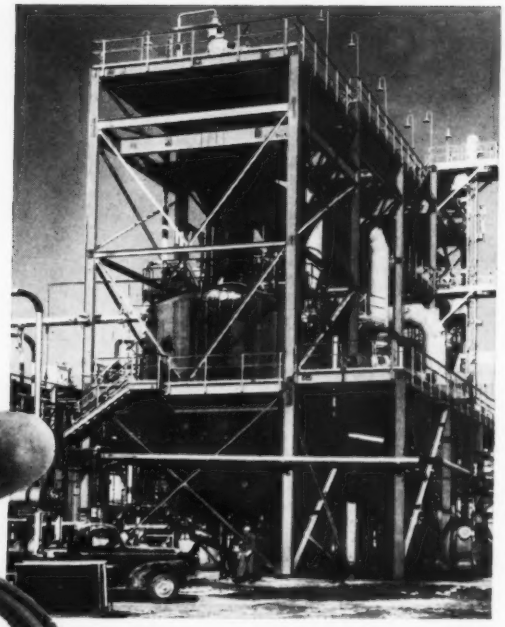
BLOCKSON CHEMICAL COMPANY

Joliet, Illinois / Division of Olin Mathieson Chemical Corporation

Sodium Tripolyphosphate • Tetrasodium Pyrophosphate • Trisodium Phosphate (Crystalline-Monohydrate) • Trisodium Phosphate Chlorinated • Disodium Phosphate (Crystalline-Anhydrous) • Monosodium Phosphate (Anhydrous-Monohydrate) • Sodium Polyphos (Sodium Hexametaphosphate-Sodium Tetraphosphate) • Sodium Acid Pyrophosphate • Tetrapotassium Pyrophosphate • Sodium Fluoride • Sodium Silicofluoride • C-29 Sequestering Agent • Teox 120 (Nonionic Surfactant) • Hydrofluoric Acid • Sulfuric Acid

BORAX

GRANULAR...in special uniform meshes in a variety of grain sizes



Vacuum crystallizers are an important segment of the new, ultra-modern, refinery recently completed and on stream at Boron, California.

Granular borax improves powdered hand soaps

Are you making powdered hand soaps? Or cleansers? Evaluate the use of granular borax in your product! Others have found that borax boosts the cleansing power . . . makes soap work better in any water. So, today we're producing more granular borax than ever before; witness our new vacuum crystallizing plant shown above. It is part of the newly expanded refinery built to assure our customers of a dependable basic source of quality borates . . . in every form for every possible use. Get in touch with us now for helpful suggestions. You'll get sound advice. We've been *specialists* in borates and boron products for more than half a century!

. . . and here are **borates** . . . of interest to Chemical Specialties Manufacturers . . .

GRANULAR BORAX . . . *in special screen sizes*
BORAX 5 MOL . . . *Pentahydrate form of Sodium Tetraborate*
SODIUM METABORATE
SODIUM PENTABORATE
POTASSIUM TETRABORATE . . . *Granular*
POTASSIUM PENTABORATE . . . *Granular and Powdered*
POLYBOR®

United States Borax & Chemical Corporation

Pacific Coast Borax Company Division

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630 SHATTO PLACE, LOS ANGELES 5, CALIFORNIA

The first improvement in metasilicate in 25 years!

Regular sodium metasilicate pentahydrate

New Cowles Crystamet 2040

Free Flowing!
Dust Free!
Blends and Mixes Easier!

Crystamet 2040 is the name of the new Cowles sodium metasilicate pentahydrate that resists caking, mixes quickly and remains dust free.

Granules are rounder, smoother, more uniform in size . . . the result of a new exclusive Cowles process.

Supplied in both 20-40 and 10-20* ranges*

**U. S. Screen*

Write on your company letterhead for a sample of Crystamet 2040 or 1020 and a technical data sheet.

Cowles **CHEMICAL COMPANY**

7020 Euclid Avenue • Cleveland 3, Ohio

with detergents made from

NEOLENE 400

The proven chemical intermediate...Neolene® 400 . . . is used by many of the world's leading processors of detergents and surfactants. It is an alkyl benzene of the highest quality and is an exceptional base for both liquid and dry detergents. Why not put Neolene 400 to work for you? Its many outstanding characteristics include:

Stability during sulfonation

Uniformity and purity

Excellent color and odor

Makes detergents with exceptional wetting, cleansing and foam properties

CONOCO Petrochemicals

Petrochemical know-how from the ground up!

CONSIDER CONTINENTAL'S:

QUALITY— Neolene 400 is consistently high in quality as are all other Conoco petrochemicals. This reputation for quality is the result of steadily improved production facilities and Conoco's determination to find better ways to produce superior products.

QUICK DELIVERY— Conoco's extensive distribution facilities assure you of fast service, whether by tank car, tank truck, or barge. This assurance of quick, efficient delivery simplifies your own inventory and storage problems.

TECHNICAL ASSISTANCE—Whether you purchase in large or small quantities, Conoco technicians stand ready to help you improve a product or a process, to find new applications, to suggest ways of cutting costs.

May we suggest that you call or write today for samples and more information about Neolene 400.

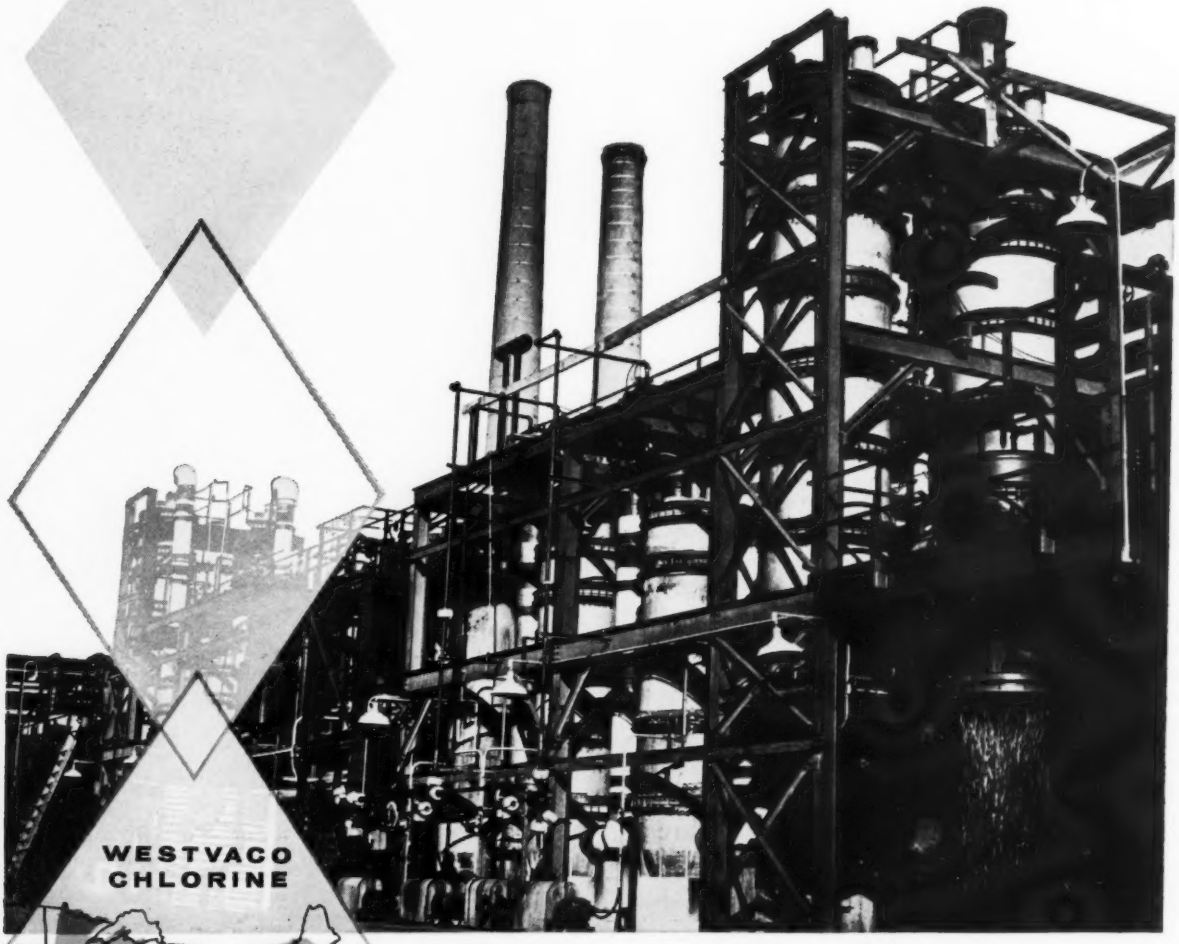
CONTINENTAL OIL COMPANY

Petrochemical Department

1270 Avenue of the Americas, New York 20, N. Y.

European Sales Office: Box 1207, Rotterdam, The Netherlands

"triple scrubbing" makes Westvaco® Chlorine pure and dry!



When high purity, low moisture chlorine is required, Westvaco should be among your first sources of supply. Nobody produces better electrolytic chlorine than you get from our "new" plant at South Charleston, W. Va.

As chlorine gas comes from the cells, it is "dried" and organic impurities removed in an efficient three-step scrubbing operation. Chloroform and chloroethylenes are present in Westvaco Chlorine only in low ppm. It's low in residual gases, too, which are reduced in cooling and liquefaction subsequent to scrubbing.

If you use chlorine anywhere in the East, mid-South or Midwest, pertinent data on Westvaco Chlorine should be in your files. Our nearest office will be glad to send you detailed product specifications and to quote on your requirements.

Putting Ideas to Work

fmc
FOOD MACHINERY AND CHEMICAL CORPORATION ®

FOOD MACHINERY AND CHEMICAL CORPORATION

Westvaco Chlor-Alkali Division

General Sales Offices:
161 E. 42nd STREET, NEW YORK 17

For Premium Grade Soaps, depend on **ADM** fatty acids

Top quality soaps start with the best vegetable fatty acids. That's why ADM fatty acids are the first choice of premium soap manufacturers.

You can choose from nine specialized ADM corn, soya, cottonseed, or linseed fatty acids. A glance at the specifications shows that this complete line gives you a wide selection, whether you are looking for economy, easier processing, or higher quality.

That's one of several big advantages you gain in doing business with ADM—you have a single reliable source for a complete line of dependably uniform fatty acids. Highest purity and unvarying specifications are always assured.

In addition to the time-saving convenience which comes with buying from ADM, you also have the advantage of being able to buy any combination of fatty acids and linseed and soybean oils in truckload, carload, or tankcar shipments. These combined purchases add up to healthy savings.

A COMPLETE LINE FOR YOUR NEEDS

Many soap and chemical specialties manufacturers find other ADM chemical products profitable and useful. ADM sells lauryl, myristyl, cetyl, stearyl and oleyl alcohols, hydrogenated fatty acids and hydrogenated glycerides as well as vegetable fatty acids. If you manufacture soaps, surfactants or cosmetics, ADM's complete line of Hydrofol Products should be on your approved list.

ADM VEGETABLE FATTY ACIDS

		Iodine Value	Titer	Color (Gardner)	Acid Value
LINSEED	Water White Distilled	180 Min.	17-20	3 Max.	197-204
	Regular Distilled	157 Min.	18-24	6 Max.	195-204
	SM-500	152 Min.	18-24	10 Max.	193-204
SOYA	Water White Distilled	135 Min.	20-23	2 Max.	195-205
	RO-10	124 Min.	23-29	5-6	195-205
	RO-11-S	124 Min.	23-29	4 Max.	195-205
SOYA-TYPE	RO-8	115 Min.	30 Max.	6-8	195-205
COTTONSEED	Double Distilled	95-110	32-38°	8 Max.	195-205
CORN	Double Distilled	105-120	26-32	8 Max.	195-205

ADM Products: Linseed, Soybean and Marine Oils, Synthetic and Natural Resins, Fatty Acids and Alcohols, Vinyl Plasticizers, Hydrogenated Glycerides, Sperm Oil, Foundry Binders, Bentonite, Industrial Cereal, Vegetable Proteins, Wheat Flour, Dehydrated Alfalfa, Livestock and Poultry Feeds.

Archer-Daniels-Midland

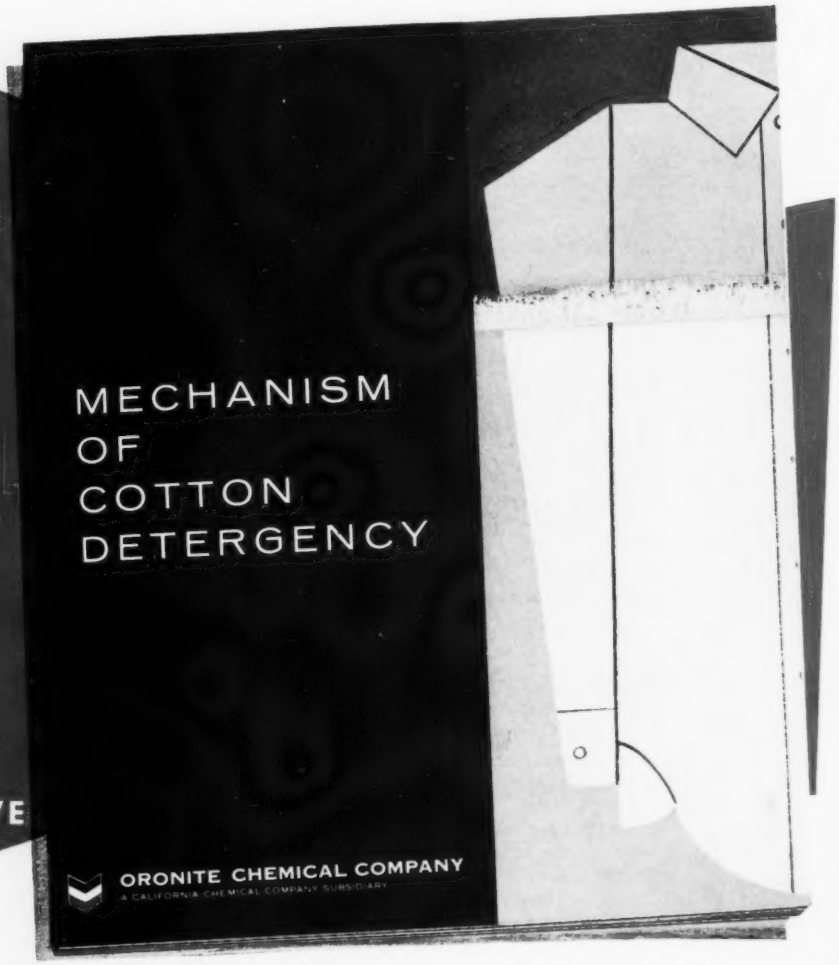
CHEMICAL PRODUCTS DIVISION
734 Investors Building
Minneapolis 2, Minnesota

Chemifats from Nature's Wondrous Warehouse

From the World's leading producer of synthetic detergent raw materials...

A complete analysis of Cotton Detergency

- FACTUAL
- ILLUSTRATED
- COMPREHENSIVE



Now—for the first time—Oronite Chemical Company is making available a complete 16-page technical booklet on the mechanism of cotton detergency. Illustrated with helpful diagrams and sketches, the booklet presents a clear, comprehensive analysis of the factors involved in cotton detergency, including a detailed discussion of soils, the soil-fabric complex and the role of surfactants and builders in the cleaning process.

"Mechanism of Cotton Detergency" is another product of Oronite research, another reason why Oronite, producers of Oronite Alkane*, continues its leadership in developing and marketing highest quality detergent raw materials.

*Trademark for detergent intermediate.

Get your free copy today! Just fill in the coupon below.

ORONITE CHEMICAL COMPANY
A CALIFORNIA CHEMICAL COMPANY SUBSIDIARY
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ORONITE CHEMICAL COMPANY
200 Bush St., Dept. "O"
San Francisco 20, Calif.

☐ Please send me your new booklet, "Mechanism of Cotton Detergency."
☐ Please have an Oronite detergent specialist call on me regarding our requirements.

Name .....
Firm ..... Title .....
Address .....
City ..... State .....

After Closing

Arthur Rasmussen Dies

Arthur Rasmussen, 59, vice-president and general manager of Furst-McNess Co., Freeport, Ill., died of cancer, Oct. 28. He had been ill since last February. Mr. Rasmussen, who had been with the firm nearly 32 years, had been advertising manager of W. T. Raleigh Co., Freeport, before joining Furst-McNess. He was employed in the city department when he first joined the company, later becoming advertising and sales manager, and eventually becoming vice-president and general manager. Charles Furst is president of the firm.

Kenneth Inman, since 1936 Oakland, Calif., branch manager of Furst-McNess Co., and a 30-year veteran with the firm, has been named to succeed Mr. Rasmussen. Mr. Inman was named a vice-president of the company about a year ago.

In addition to three married daughters, Mr. Rasmussen is survived by his widow Buena Rasmussen.

—★—

Toxaphene Household Use

"Toxaphene" insecticide, widely used for agricultural crops, particularly cotton, has formally been accepted by the U. S. Department of Agriculture for registration as a household insecticide, it was announced Nov. 3 by Hercules Powder Co., Wilmington, Del. Toxaphene thus can be used both as a space spray and as a residual type insecticide. It may be used in liquid insecticides dispensed by hand sprayers or in aerosol insecticides.

Among the insects controlled by Toxaphene are flies, mosquitoes, gnats, ants, silverfish, bed bugs, roaches, house spiders, black carpet beetles, clothes moths, fleas and many small flying insects.

In addition Toxaphene does not require auxiliary aromatic solvents, according to its manufacturer.

—★—

Cornelius, Ziegler Part

Termination of its contractual agreement with G. S. Ziegler Co., New York, effective Oct. 1, was announced recently by Cornelius Wax Refining Corp. According to the announcement, made by Cornelius, each company will henceforth conduct its own business as it had before the association. Cornelius continues under the same management. Its address is Box 176 Dunellen, N. J. Principals are George R. Freund and Edward Koos.

—★—

Simoniz Appoints Coyne

Joseph R. Coyne has been named factory representative in the Philadelphia area for Simoniz Co., Chicago, it was announced recently by Hugh Rains, general manager of the commercial products division.

Mr. Coyne makes his headquarters at the branch office and warehouse in Philadephia.

Another New Bridgeport Aerosol Loader

AERO-Chem Laboratories, Inc., has just announced it is now operating as an aerosol custom filler in Bridgeport, Conn. The firm, which plans to specialize in loading cosmetics, is located in an 8,000 square foot plant at 1981 State Street Extension, Bridgeport.

At present the firm is operating on a limited basis one cold fill line. According to Andrew J. Zelle, executive vice-president, a line for filling meter spray perfume dispensers will be in operation shortly. A pressure filling line will be installed and in operation by January 1, 1960, Mr. Zelle said. He also revealed that the new firm is already building an addition to its present plant, which will raise its plant area to 10,000 square feet. The firm expects its Mojonnier cold filling line to turn out about 20,000 units per day.

In addition to Mr. Zelle, other officials of the firm include: Charles O. Rader, president and John Sullivan, treasurer and assistant to the president.

Mr. Rader was formerly vice-president and sales manager of Powr-Pak-ConnChem, Inc., Bridgeport contract aerosol filling firm formed last May by the merger of Powr-Pak, Inc., and Connecticut Chemical Research Corp., Bridgeport loaders. Mr. Rader had been with Connecticut Chemical Research as sales manager from 1954.

Charles O. Rader

Andrew J. Zelle

Previously he had been with Bridgeport Brass Co.

Mr. Zelle had for five years been director of packaging research for Connecticut Chemical Research until this past summer when he joined Valve Corporation of America, Inc., Bridgeport, as consultant member of the engineering staff. He had been with Bridgeport Brass from 1947 until he joined Connecticut Chemical Research Corp. Mr. Zelle is a graduate of Bridgeport Engineering Institute.

Aero-Chem plans to devote its major attention to loading of perfumes, colognes and hair sprays.

—★—

Diversey Settles Dispute

The Diversey Corp., Chicago, announced settlement of patent litigation last month with Charles Pfizer & Co., Inc., Brooklyn, N. Y. The settlement agreement permits Pfizer's customers to utilize Pfizer's gluconic acid or sodium gluconate in formulations, methods, or processes described in two Diversey-owned patents. The two patents cover methods of washing bottles and bottle washing compositions.

At the same time Diversey announced the granting of a nonexclusive license to Pfizer covering a patented method of etching aluminum, aluminum base alloys.

The litigation involved two law suits between the two companies.

—★—

Economics Raises Prices

Economics Laboratory, Inc., St. Paul, Minn., raised prices of two of its products last month. The increases, which became effective Oct. 15, amounted to three-quarters of a cent per pound on powdered detergent compounds and 30 cents a gallon on liquid detergent products. Increased raw material and freight charges necessitated the price rise, according to the company.

Because of increases in local delivery costs, the firm has announced a special charge of $2 a case on single-case shipments.

Edwin D. Stalfort Dies

Edwin D. Stalfort, 68, chairman of the board and co-founder of John C. Stalfort and Sons, Inc., Baltimore contract packaging firm, died Oct. 13 in Union Memorial Hospital after a brief illness. He was the son of the founder of J. C. Stalfort, an Englishman who immigrated to this country from Holland in 1868 and founded the chemical specialties firm that was to be the forerunner of the present operations. Edwin D. Stalfort joined the firm in 1919 and gained national recognition early in his career as a practical chemist by being the first to develop a complete line of household chemical specialties for private label use. He is credited with introducing the concept of distributing private label household products through grocery chains, and many of his formulations are still relatively unchanged today in the packages of leading grocery chains, a company history says.

Mr. Stalfort's firm was also a pioneer in aerosol packaging, having entered the business in 1947. Stalfort Pressure Pak, Inc., which was set up to handle this phase of contract packaging, is now one of the three largest custom loaders in the business. About two years ago Stalfort opened a new plant on Hammonds Ferry Road in Baltimore and expanded its plant floor space to 57,600 square feet.

In addition to his brother, Arthur J. Stalfort, president of John C. Stalfort and Sons, Inc., Mr. Stalfort is survived by his wife; a daughter, Mrs. Charles E. Beach, and a nephew, John I. Stalfort, vice-president and plant manager of the firm.

—★—

Atlantic Appoints Ludlow

William I. Ludlow has been appointed chemical sales engineer of the southern marketing region for the Atlantic Refining Co., Philadelphia. He works out of the firm's regional headquarters in Charlotte, N. C.

With Atlantic since 1957, Mr. Ludlow replaces W. E. Smith who has been transferred to the chemicals division sales offices in Los Angeles. Mr. Smith was chemical sales representative in Charoltte since 1953.

—★—

CSMA Proceedings

A review of proceedings of the 44th mid-year meeting of the Chemical Specialties Manufacturers Association, Inc., New York, held May 19-21 at the Netherland Hilton Hotel in Cincinnati, is now available. Included in the 209-page paper-bound volume are all reports, papers, and discussions at general sessions and divisional meetings. Also listed are current CSMA officers, members of the board of governors, committee members, and the general association membership.

Copies, which were sent free of charge to registrants at the meeting and association members, are available from CSMA, 50 East 41st St., New York 17, for $7.50 each.

—★—

Bon Ami Reports Net Loss

A net loss for the nine months period ended Sept. 30, 1958 was reported in October by Bon Ami Co., New York, and its subsidiaries. The net loss amount was given as $292,136 compared with $255,090 for the same period last year.

—★—

d-Con Names Sales Brokers

Three additional sales brokers have been appointed by d-Con Co., New York, as part of its distribution expansion program for its line of rodenticides and insecticides and "Energine" brand products, according to a company announcement last month.

The three brokerage firms include: G & G Associates, Whitestone, N. Y., covering metropolitan New York; Chaimson & Robinson, Inc., Baltimore, representing d-Con in the District of Columbia and Maryland; and Delbert Craig Co., of Kingston, and Harrisburg, Pa.

Malcolm Miller Resigns

J. Malcolm Miller, administrative manager of the Association of American Soap & Glycerine Producers, resigned Nov. 1. The oldest employee of the Soap Association in years of service, he was in his 26th year with the organization. Mr. Miller and his son John M. Miller, Jr., plan to raise beef cattle on a 500 acre farm they have acquired in Salem, Ark.

J. Malcolm Miller

Mr. Miller's son, a 1957 graduate of the School of Agriculture at Cornell University, where he majored in animal husbandry, has been herdsman for M&P farm in Cazenovia, N. Y., for the past year. There he was responsible for 300 head of registered Herefords.

Mr. and Mrs. Miller, who made their home in Tarrytown, N. Y., also have a married daughter, Mina Jay, who is Mrs. Charles G. Moseley.

Prior to joining the Soap Association, when Roscoe Edlund was manager, Mr. Miller was branch office operations manager in New York City for Metro Goldwyn Mayer. He is a graduate of De Pauw University, New Castle, Ind.

Replacing S. T. Frascinello, who resigned earlier this year as office manager of the Soap Association, is Elton Lewis, who joined the organization recently. Mr. Lewis, a graduate of Washington University, St. Louis, has a background in sales and business administration. He was a sales representative for Minnesota Mining & Manufacturing Co., St. Paul, and more recently was with the Skouras Theatres Corp., New York, in theatre operation and business administration.

—★—

P&G Earnings Increase

Consolidated net earnings of Procter & Gamble Co., Cincinnati, were reported last month at $23,992,293 for the three months ended Sept. 30, 1958. These earnings, equal to $1.16 per common share, are 16 per cent higher than the $20,708,180 in earnings that were reported for the same period last year. Earnings for the third quarter in 1957 equalled $1.02 per share.

—★—

Hunt Babbitt Tex. Rep.

The appointment of Wade Hunt Sales Co., Houston, headed by Wade Hunt, as its manufacturers representative in Texas, was announced recenly by B. T. Babbitt, Inc., New York. Mr. Hunt will cover the entire state of Texas, excepting El Paso, according to Robert L. Kob, sales manager, institutional sales department. He was formerly sales representative in Texas for Babbitt.

Products handled by Mr. Hunt include "Institutional Bab-O," "Glycol" air sanitizers and room deodorants, and the firm's line of pesticides, drain pipe opener, toilet bowl cleaner, chlorinated lime, cleansers, and other specialties. Most of these products are available also under private label.

Wade Hunt

Dunney Returns to U. S.

William H. Dunney, Jr., director of perfume laboratories and vice-president of Ungerer & Co., New York, returned in October from a month's business and pleasure trip through Europe. He was accompanied by his wife.

William H. Dunney, Jr.

While in Paris Mr. Dunney conferred with Rene Bernard, manager of Ungerer-Vidal Charvet, a French subsidiary of the United States firm.

—★—

Forms Own Wax Firm

The formation of Edward R. Hess Co., Uniondale, L.I., N.Y., for the sale and distribution of vegetable and petroleum waxes was announced early this month by Edward R. Hess, president. The firm makes it headquarters at 459 Uniondale Ave., Uniondale. Mr. Hess formerly was a sales representative for F. W. Steadman Co., New York.

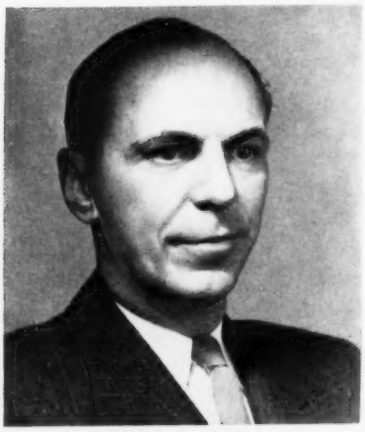
—★—

Yardley Products Featured

A promotion of men's merchandise last month at Neiman-Marcus department store in Dallas, Tex., featured Yardley of London, London, England, products in the toiletries field. Called a "British Fortnight," the promotion featured an exhibition of British male fashions, past and present, sponsored by Yardley as well as displays, exhibits and functions in support of the store's British products festival.

Johnson Elects Croft

Frank D. Croft last month was elected president and managing director of S. C. Johnson & Son, Ltd., Brantford, Canada, subsidiary of the American firm.



Frank D. Craft

Joining the company in 1920 as a salesman, Mr. Croft was later branch manager and Toronto district sales manager. From 1932 to 1957 he was general sales manager and in 1957 was elected managing director and vice-president.

—★—

"Lestoil's" Growth Marked

A case history presentation of the growth of "Lestoil" liquid detergent and cleanser was given last month at a luncheon meeting of the Boston chapter of the American Marketing Association. Isaac L. Eskenasy, vice-president of Lestoil, Inc., Holyoke, Mass., made the presentation. Lestoil is a subsidiary of Adell Chemical Co., also of Holyoke, which marked its 25th anniversary last month.

—★—

Diversey Grants License

The Diversey Corp., Chicago, announced last month that it has granted a non-exclusive license under three of its patents to Dawe's Laboratories, Inc., Chicago. The three patents cover a method of etching aluminum and aluminum base alloys; methods of washing bottles; and bottle washing compositions. The license, which extends to Dawe's Laboratories' customers of gluconic acid and sodium gluconate, also includes Diversey Canadian patents relating to aluminum etching and other fields.

Diversey manufactures and markets "Spec-Tak" and "Spec-Tak 1000" compounds for bottle washing and "Aluminux" for aluminum etching.

—★—

Dow Adds Allyl Chloride

Allyl chloride is now being made by Dow Chemical Co., Midland, Mich., at its Texas division. Glycerine is one of the important derivatives being made from allyl chloride. A bifunctional chemical intermediate, allyl chloride reacts readily through the chlorine atom or the double bond. Reactivity of each functional group is enhanced by the presence of the other, so that the reactions of allyl chloride are rapid and complete.

—★—

Durrer Returns to U. S.

E. R. Durrer, president of Givaudan Corp., New York, and its associate companies, Givaudan-Delawanna, Inc., Givaudan Flavors, Inc., and Sindar Corp., returned to the United States during September after an extended European trip during which he visited Givaudan plants in Switzerland, France, and England.

Commenting on economic conditions in the countries he visited, Mr. Durrer reported that the recession in the United States had no disturbing repercussions in Europe and business abroad appeared to maintain a high level of activity.

Ernest R. Durrer

Kurly Kate Elects Matz

Edward D. Matz has been elected a vice-president of Kurly Kate Corp., Chicago, manufacturers of metal scouring pads and sponges for industrial and household use, it was announced last month by the company.

Edward D. Maty

A member of the Chicago Bar Association, Mr. Matz was with the Chicago law firm of Crowell and Leibman for past three years.

—★—

Prentiss Names R. Peltz

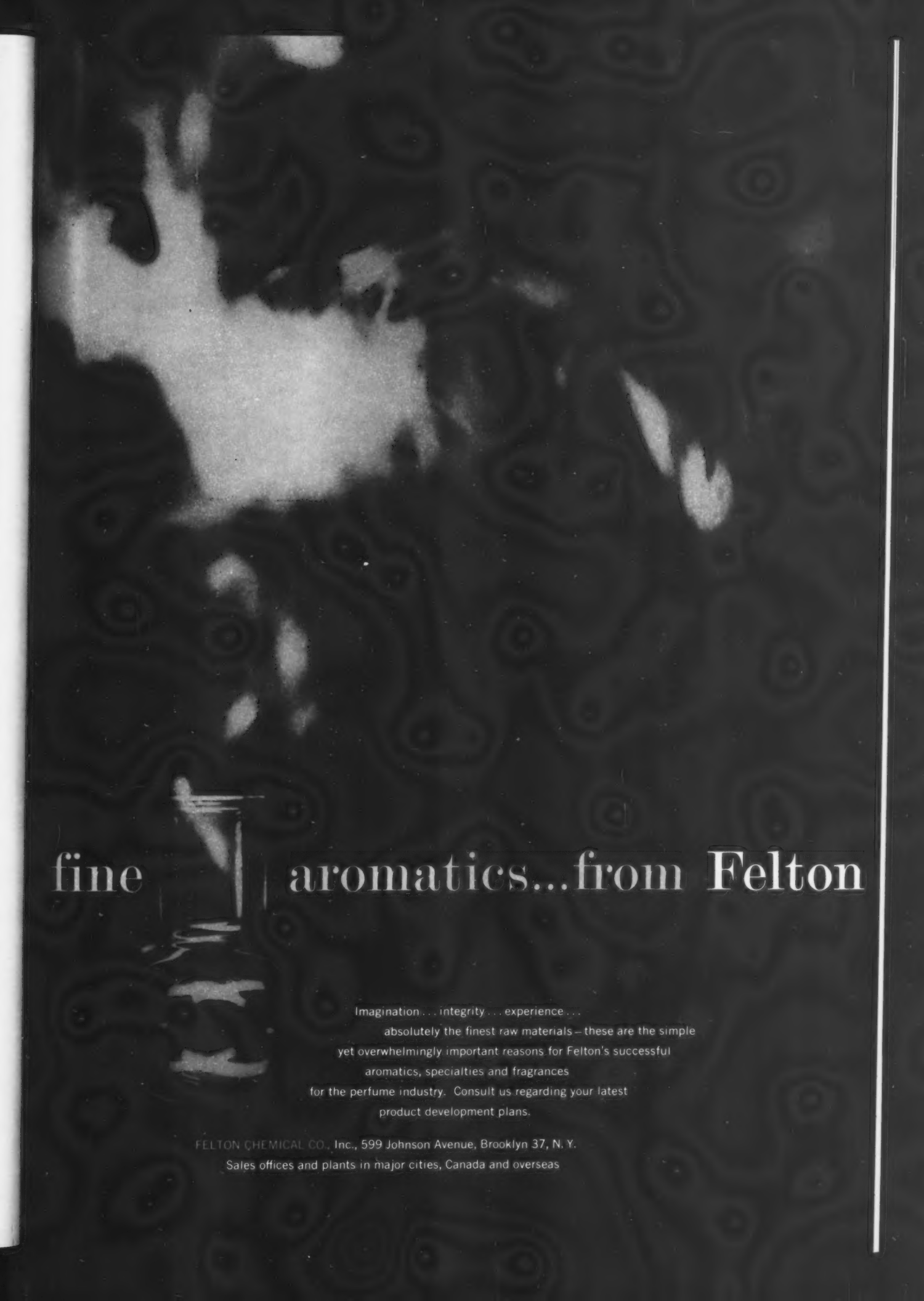
R. Peltz Co., Philadelphia, has been appointed exclusive sales representative for Prentiss Drug & Chemical Co., Inc., New York, in the Philadelphia, Baltimore, and Washington area. The appointment became effective on Oct. 20.

—★—

New Penick Department

A new pest control supply department has been formed by S. B. Penick & Co., 50 Church St., New York 8, it was announced by the company at the October silver anniversary convention of the National Pest Control Association in Washington, D. C.

The new department offers a complete line of laboratory-controlled insecticides and rodenticides to professional pest control operators and sanitarians. Shipments are said to be dispatched within 24 hours after orders are received. Other features of the department include technical bulletins and special forms to simplify ordering.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Imagination . . . integrity . . . experience . . .
absolutely the finest raw materials – these are the simple
yet overwhelmingly important reasons for Felton's successful
aromatics, specialties and fragrances
for the perfume industry. Consult us regarding your latest
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Built-in consumer appeal at no extra cost with Spray-Dried Shea® Phosphates made only by Hooker

For a 20 to 30% larger detergent package–at no increase in cost–order Shea spray-dried sodium phosphates. An exclusive spray-drying process gives you phosphates with 70% greater bulk and actually helps make your detergent more effective.

Sodium tripolyphosphate content is the highest in the industry–97 to 99%–resulting in greater sequestering power in your product. Tetrasodium pyrophosphate content averages 99% or better.

Solution is two to three times faster than for conventional types. These spray-dried granules are hollow, air-filled beads, with a greater surface area. This permits them to go into solution quickly and easily–without prolonged agitation. They are virtually dust-free and will neither bridge nor cake.

Shipments are made promptly by rail or truck from Jeffersonville, Indiana, or Dallas, Texas. Write or phone for free samples and data, or call your local distributor.

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PHOSPHORUS DIVISION

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HOOKER CHEMICALS PLASTICS

more uniform mixtures in less time with

Nacconol® DBX

SUPER DENSE BEADS

40% Minimum Active Organic Detergent!

Now you can make a *better* detergent mixture . . . *faster* . . . in a simple rotary blender.

NACCONOL DBX spray-dried alkyl aryl sulfonate is as dense as most flake materials . . . can be substituted for flakes *at no higher material cost!*

Production time is reduced. Your finished mixture is more uniform . . . with little or no striation. Your product looks better and works better, too!

Easy-handling NACCONOL DBX is essentially dustless, free-flowing and non-caking.

For a generous sample, use the coupon below.

Allied Chemical

NATIONAL ANILINE DIVISION
40 Rector Street, New York 6, N. Y.

Atlanta Boston Charlotte Chattanooga Chicago Greensboro Los Angeles
New Orleans Philadelphia Portland, Ore. Providence San Francisco

Please send sample of NACCONOL DBX

Name: _____

Company: _____

Address: _____

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"THESE BILLS ARE RIDICULOUS!"

"A single supplier for all our detergent needs *will save us money.*"
"Yes—*if* you can find one with a wide enough range of products."
"Call Ultra—they are the quality detergent supplier with the broadest line in the industry. We can combine all Ultra's products for a quantity price, too. This saves us actual dollars in addition to cutting overhead on handling and delivery."
"Economy is important, but so are technical service and prompt delivery."
"Ultra's technical service is terrific, too, and they've always met our delivery schedules."

Alkyl Aryl Sulfonates
- Spray-Dried
- Drum-Dried
- Liquids
- Slurries

Foam Stabilizers
Low-Foaming Wetting Agents
Emulsifiers
Amine Condensates
Non-Ionic Detergents—
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Coupling Agents
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Headquarters for all your detergent needs

Ultra Chemical Works

Division of Witco Chemical Company, Inc.
2 Wood Street, Paterson, N.J.

ULTRA CHEMICAL WORKS
2 Wood Street
Dept. S-11
Paterson, N. J.

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BRING OUT THE BEST WITH CELLULOSE GUM

Long a standard ingredient in leading brands of conventional toothpastes, Hercules® cellulose gum (purified CMC) is now adding to the effectiveness of the new pressurized types.

As a stabilizer, cellulose gum maintains the consistency of the paste, preserves its whiteness and gloss, and increases its shelf life. Whatever your product, perhaps versatile cellulose gum can help make it better. Write for technical data.

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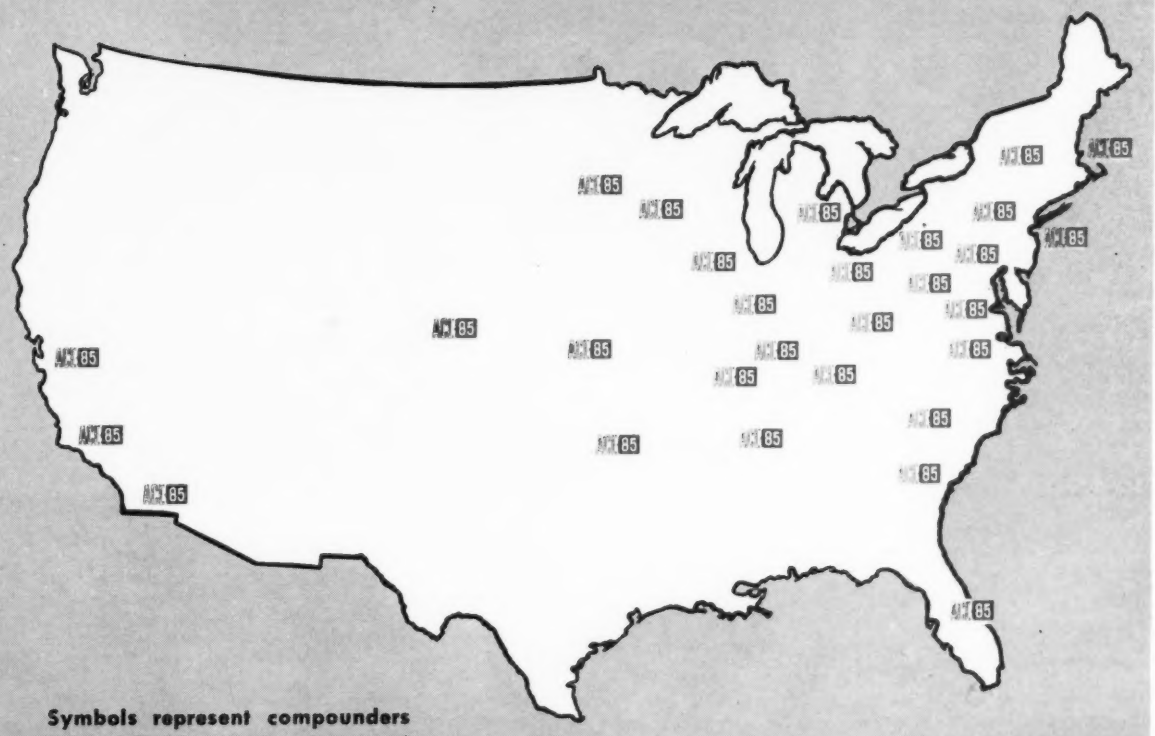
VC58-4

Commercial laundries changing to higher quality dry bleaches



Symbols represent compounders using ACL-85 to produce improved dry bleaches requested by the commercial laundry industry.

ACL: Reg. U.S. Pat. Off.

DOES YOUR BLEACH MEET THIS NEW DEMAND?

In October 1957, following extensive industry testing, Monsanto started commercial production of ACL-85 and related chlorinated cyanuric acids.

Today, ACL-85 has been accepted nationally as the new *standard* organic source of available chlorine for *higher quality* dry bleaches.

The solid form and high available chlorine content of ACL-85 make it ideal for easy and flexible compounding. Bleaches made with ACL-85 are easier and safer to handle and ship than liquid bleaches and can be made fully equivalent in performance to sodium hypochlorite solutions.

Write or phone Monsanto for information and technical literature on ACL-85.

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MONSANTO CHEMICAL COMPANY
Inorganic Chemicals Division
St. Louis 24, Missouri

. . . in brief

as the editor sees it . . .

FDA RULING . . . "Detergent substances other than soap, intended for use in cleansing the body" have been classified as "cosmetics" by the Food & Drug Administration and as such are now subject to the provisions of the Food, Drug & Cosmetic Act. Soaps are specifically exempted under this act. In its new ruling, FDA has gone further and classified soap as an alkali salt of fatty acids, a definition which did not appear in the law. Obviously, this definition eliminates detergents from the exemption clause enjoyed by soaps.

Although FDA has apparently been toying with this idea for some time past, as have several states, the ruling comes as something of a shock to the soap industry. It means that the newer detergent toilet bars, hand cleaners based on detergents and other products of like nature now come directly under the Food, Drug & Cosmetic Act. Just one more headache for manufacturers and marketers of such products.

Whether detergents are truly more toxic or dangerous than soaps to use on the body is evidently a moot question. We have a feeling that FDA may be unduly complicating the marketing situation in soaps and detergents without furthering protection of the American public. That is unless they have definite scientific evidence to justify their ruling. In which case, any such evidence should be made public promptly.

* * * * * *

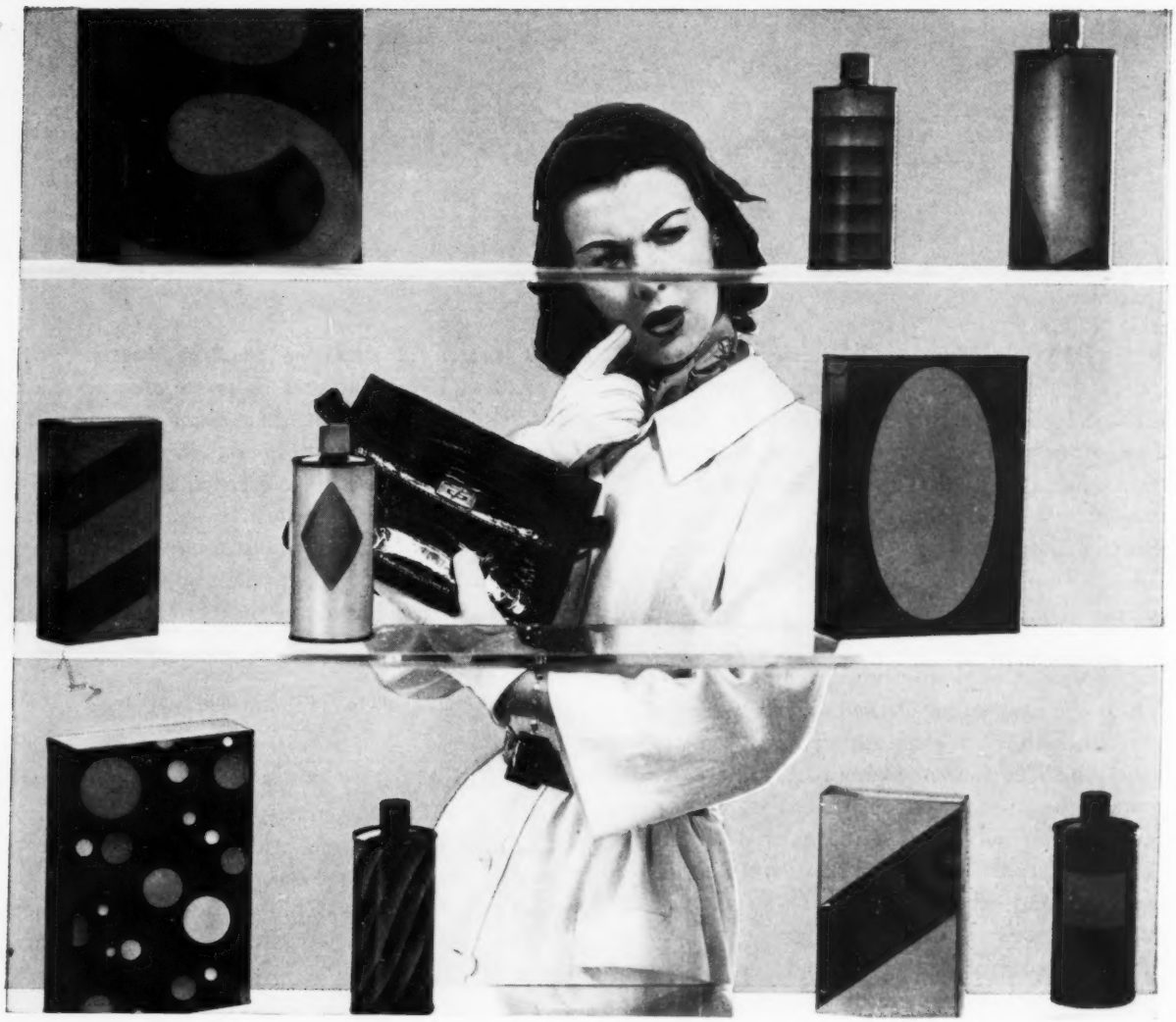
CANADA . . . The first annual meeting of the Canadian Chemical Specialties Manufacturers Association is being held in Montreal, November 13 and 14. It's a historic occasion which marks the spectacular rise in the manufacture of chemical specialties and chemical sanitation products in Canada in the post-war years. It marks a banding together of Canadian manufacturers to serve their specific interests and help solve their common problems which always come with growth in any industry.

As the first meeting convenes, many American manufacturers are in attendance to express their feelings of good will and hopes for a long continuation of the close friendship between the Canadian and American industries. History is being made in Montreal!

* * * * * *

CLEANLINESS . . . Out of a national conference on hospital-acquired staphylococcal disease held recently at Atlanta under the sponsorship on the U.S. Public Health Service and the National Academy of Science came recommendations from leading physicians and hospital administrators for greater cleanliness and the wider use of disinfectants and soaps containing germicides such as hexachlorophene. The problem of staphylococcus aureus infection which has plagued hospitals for a year or more is not confined to the U. S. It is world wide. Apparently anti-biotics had lulled hospital personnel into a false sense of security.

That a gathering of some 250 leading scientists in the field of communicable disease and public health should come up with so simple a set of recommendations to control staphylococcal disease as an expanded use of cleaning materials and germicides should be gratifying to every firm which makes and sells these products. In spite of the great advances of the medical sciences, plain ordinary cleanliness still rates high in the field of disease prevention. And old fashioned coal-tar disinfectants have again taken their place in the sun along with newer germicides. This seems to be the verdict of the experts.



Win her approval

perfume your detergent with Givaudan *Tergescents*®

Women are always "fragrance-conscious"—a pleasant scent is often the prime factor in her repeat purchases. You can key your household detergents to her preferences with low-cost Givaudan *Tergescents.*

These powerful, appealing fragrances—for liquid or powdered detergents—are especially developed to assure your detergent's success. They will give you outstanding consumer acceptance at very low cost.

Givaudan will be glad to recommend the type of *Tergescent* that is best suited to your product...or we can custom-make a fragrance that exactly fits your specific needs.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.
321 West 44th Street, New York 36, N. Y.

DETERGENTS . . . When liquid detergents made their debut a few years back, chiefly for household dishwashing, we had the temerity to hint that maybe they were something of a novelty and might not amount to much saleswise. We had hoped that our slight error in judgment would be forgotten with the passage of time. But it seems that there is always some low pup who will come out of the dim past and remind transgressors of their mistakes.

So we were a bit skeptical of liquid detergents when they first came out. We figured that they cost too much money and that Mrs. McGuff would not pay the price. Wrong! Then we thought that a slippery bottle and wet hands spelled a lot of breakage. Wrong again! New types of heavy duty and general purpose liquids were added to the list of dishwashing products on the market. Sales of all types of liquids boomed. New brands have been falling all over each other to get on the market. Public acceptance has been nothing short of phenomenal.

Now, in the light of recent developments if we predict that the detergent business in a few years will be mostly a lot of products packed in cans and bottles, we could be caught off base again. So we will hold our fire. We won't even say that we feel a little sorry for the fellows who make cartons for the soap and detergent trade. Next month it could be different again.

* * * * * *

AEROSOL DISPOSAL . . . Disposal of empty aerosol containers still presents a problem, at least to manufacturers. Frankly, they are at a loss what to recommend to users. If recommendations are too complicated, they know that the user will ignore them. So the search for a simple, easy method of disposal goes on in the Scientific Committee of the Aerosol Division of CSMA. In the meantime, the public seems to have solved the problem in a sort of practical way. They have solved the problem to a great extent by ignoring it. To date, well over a billion aerosol packages have been sold and used and the number of accidents accompanying disposal has been very minor.

That there is inherent danger in disposal, everyone knows. Complaints from incinerator operators, both private and public, have been heard. They have brought mechanical devices to aid disposal. They have brought one proposed method of placing the empty container in a refrigerator over night and puncturing it with a beer can opener next day. We fear that this and similar suggestions would continue to be ignored. In the meantime, the liability of the marketer remains. As of now, there is little else he can do except put the usual warnings on the label, as prominently as possible, for the protection of his own legal rights.

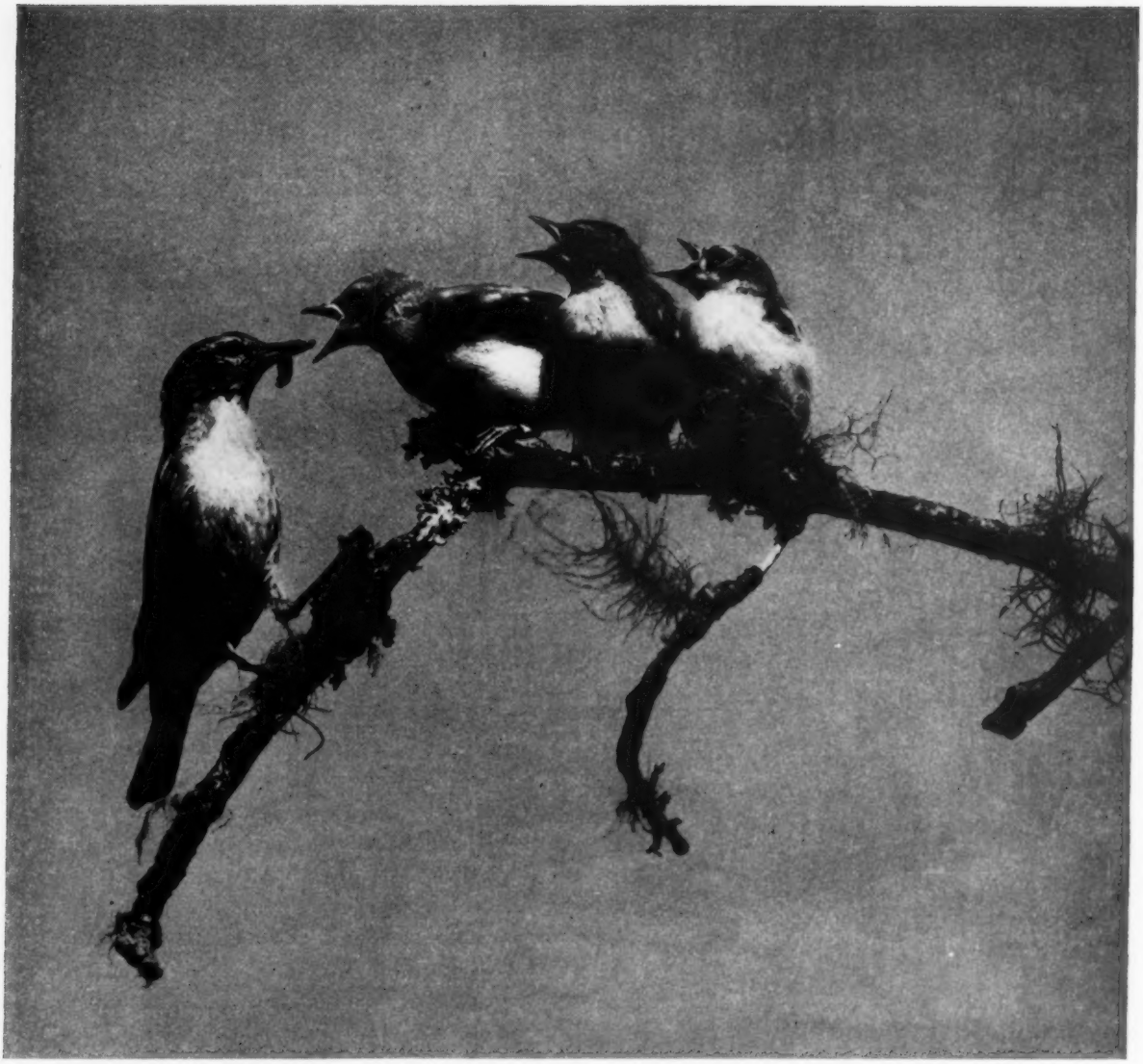
While we realize that the world is full of law suit hounds, hungry to tap the till of any marketer if the door is left open, we still feel that the marketer is reasonably well protected if his container is labeled correctly. In time, we hope the Aerosol Scientific Committee finds the answer.

* * * * *

NEW PRODUCTS . . . New chemical specialties continue to come on the market with almost machine-gun rapidity. Some are designed for the household. Others for industry. At the same time, old products fade out of the picture, some of them hardly missed as they pass into oblivion. Some are outmoded. Others are unable to stand the competition which grows out of modern merchandising. The battle for shelf space with all that it entails is too much. It's easier to give up the ghost.

Behind every new product that comes to market, there undoubtedly lies a reason. Mostly, it's hope of a profit, but there are other reasons too. Self-defense is not uncommon, the aim to protect one's market position against the incursion of new products. In fact, we have a hunch that more products are put on the market because a competitor comes out with a new item than for most other reasons. And if the competitor's new product seems to meet with success, other products of like nature are a certainty.

We hear the Madison Avenue boys prate of market research, surveys, and consumer acceptance. But when the chips are down, the seasoned marketer is interested primarily in what his successful competitors are doing or plan to do. Sometimes, it leads a whole group of manufacturers up a wrong alley. Other times, it doesn't. But, good friends, that's modern marketing, whether you want to believe it or not. Surveys? Research? Mostly window dressing we think.



Essentially for you

D&O
ESTABLISHED 1798

flavor bases
dry soluble seasonings
essential oils
aromatic chemicals
perfume bases

because its desire for life is sharpest, its beak thrust most urgently forward, its cry the strongest. Because it will be the first to fly from the natal branch into the open air and pour forth its song! Even the impartially devoted mother recognizes the distinction of her most unique offspring. In a group of fragrances, too, one will be outstanding and like the most daring and advanced fledgling will command the interest and attention of all. For more than 160 years, D&O has taken under its wing all kinds of perfuming problems, industrial or romantic, and will continue to add to its unsurpassed record with more of the finest products of quality materials and creative chemistry. For the perfume composition that "stands apart" . . . consult D&O!

DODGE & OLCOTT, INC.

180 Varick Street, New York 14, N. Y.

Sales Offices in Principal Cities

as the reader sees it . . .

"Hazard Laws"

Editor:

Your editorial on "Hazard Laws" in the October, 1958, issue of *Soap & Chemical Specialties* is extremely moot. I have been an advocate of cooperation between the numerous and varied associations of manufacturers in the chemical industry on a permanent and not merely *ad hoc* basis, for a long time, as you know.

I am probably sticking my neck out again, but permit me to reinforce your editorial with the suggestion that the industry, through its associations, set up a joint committee for the purpose of acting on legislation, etc., affecting the industry as a whole.

There are probably about 40 national associations covering the manufacture of basic and specialty chemicals, soaps and detergents, and drugs, cosmetics, and proprietary medicines. Heretofore, we have never been able to put forward a united face. We have never been able to have the body represent the industry as a whole. This always seems to me a major weakness when facing other bodies, which speak for a whole national group. Union, after all, is strength.

W. S. Jessop,
President
U.S. Sanitary Specialties Corp.,
Chicago

Could this apparent lack of union stem from the fact that possibly the interests of all these groups are not identical? Ed.

—★—

Aerosols Anyone?

Editor:

We would like to thank you for the editorial "Aerosols?" which appeared on page 41 of the September issue of *Soap & Chemical Specialties.*

This thing has been a thorn in our side for years and we are about to come to the opinion that we should do something about it.

As you may know, Dr. Lyle Goodhue came to this little Kansas town from the Department of Agriculture during World War II, and started Airosol, Inc. The original product was the high pressure bomb for the government of the United States.

Airosol, Inc. realized in November of 1946 that the high pressure bomb cost too much for Mrs. Housewife and developed the low pressure bomb.

In all of this development process hundreds of thousands of dollars were spent to arrive at the proper low pressure propellant, can and valve, all the original engineering development work having been done here.

In order to protect the name and to protect itself insofar as possible, Airosol filed for trade-mark 420,021 on August 4, 1945, to protect its original investment both in time, money, sweat and blood in developing this product in the first place.

Since then almost any fly-by-nighter who takes a notion, can open up a plant and call it "Aerosol," taking advantage of pioneering which this company accomplished.

We are in the process of working on the whole problem right now with our Patent Attorney and will let you know as soon as we come up with a firm decision.

John Matthews, president
Airosol Company, Inc.
Neodesha, Kans.

—★—

Tolerances

Editor:

The article by Mitchell R. Zavon, M.D., "Insecticide Toxicity —A Doctor's Viewpoint," will certainly attract the interest of any manufacturer, formulator and seller or household insecticides, who is serious enough to consider all consequences of the sale of potentially dangerous material to the public.

In this respect could you inform us whether there is an official

(*Turn to Page* 170)

Mr. and Mrs. H. R. Shepherd photographed aboard the Queen Elizabeth in New York Oct. 10 were en route to England and the continent. Mr. Shepherd, president of Aerosol Techniques, Inc., Bridgeport, Conn., contract aerosol loading firm, will attend a meeting of the board of directors of Midland Aerosols, Inc., Wolverhampton, England. He was recently elected to the board of Midland. The Shepherds make their home in Fairfield, Conn.

Detergents . . . Cleansers . . . Soaps . . .

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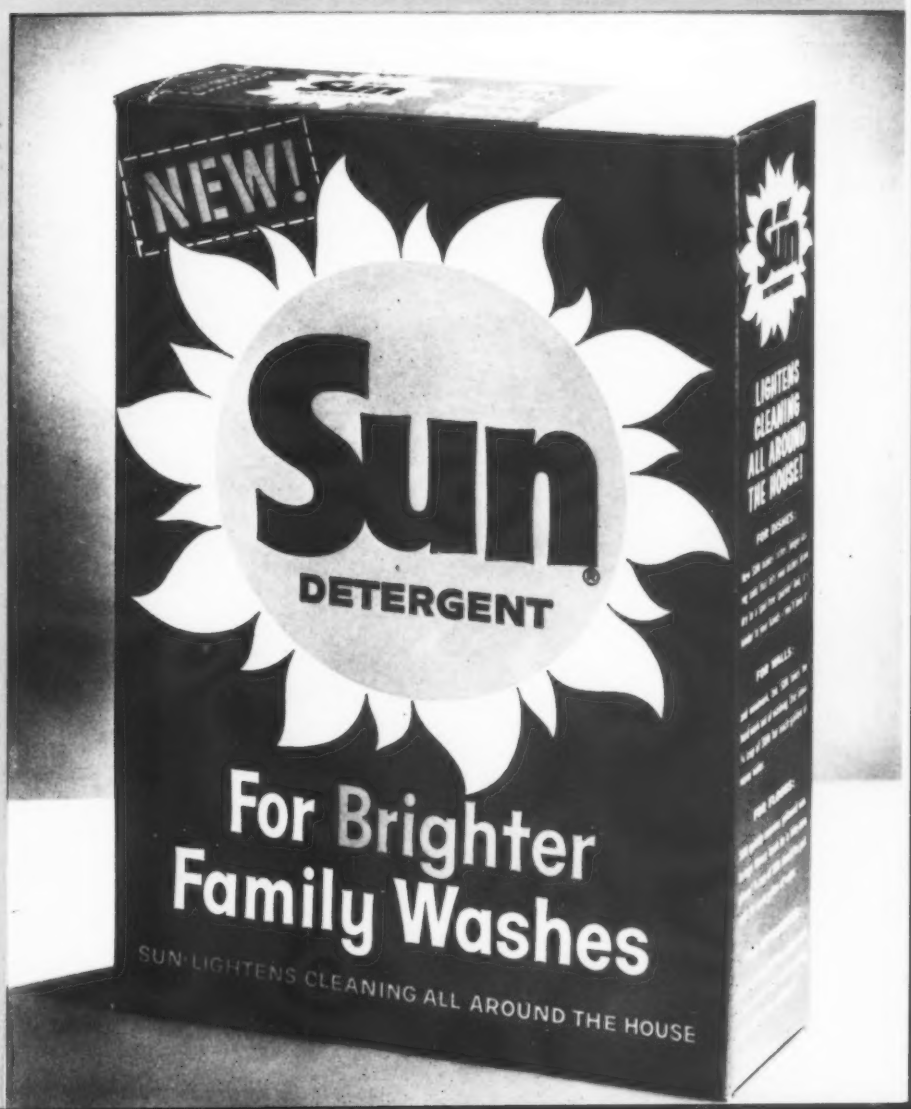

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DETERGENT TRENDS..

New trends in formulation and applications reported in all-day symposium on detergents at AOCS meeting

By John W. McCutcheon
Consulting Chemist,
New York City

AN all-day symposium on synthetic detergents Oct. 22 highlighted the 32nd annual meeting of the American Oil Chemists' Society, held at the Hotel Sherman, Chicago, Oct 20-22. Under the chairmanship of N. W. Ziels, Lever Brothers Co., and R. H. Rogers, Jr., Swift and Co., nine papers were presented at the symposium.

"Synthetic Detergents as Dairy and Food Plant Cleaners" was the opening paper read by K. C. Tucker of Oakite Products, Inc., New York. The speaker dealt with basic principles involved in cleaning dairy and food processing equipment rather than with individual detergents and formulations. In these industries, product quality depends in large measure upon the quality of sanitation, and profits are greatly influenced by sanitation's economy and efficiency. Detergents, correctly formulated for the purpose and correctly applied, are a prerequisite for the achievement of this goal.

Surface active agents, polyphosphates and other lime sequestering agents, and foam control materials are compounded into detergents in proportions tailor-made to remove individual types of soil, commonly encountered on this processing equipment. Single operation cleaner-sanitizers contain a quaternary ammonium compound for anti-microbial action. Low-alkaline hypochlorite compounds may be added to speed sanitizing. Good cleaning does not always call for highly alkaline solutions. These should be used judiciously to reduce personal hazards. Metal cleaners are greatly improved by incorporation of a synthetic detergent, which aids gloss and soil removal. Although not specifically stated, it was conveyed that alkyl aryl sulfonates are the work horse in dairy and food plant cleaning operations.

While the correctly formulated cleaning and sanitizing compound is of prime importance, correct methods of application are equally essential. The speaker described various mechanical cleaning aids, including spray guns which operate from city water pressure and draw detergent solutions from portable tanks. Spray nozzles rotated by the water pressure can be suspended inside tanks. Self contained hot spray units deliver two gpm of detergent solution at 50 to 75 psi and enable one man to clean an area of 24,000 square feet in an hour. A rotating slotted nozzle device can be permanently installed in tanks or kettles for push button cleaning of such vessels.

Portable foam spray units for truck cleaning are operated by air pressure. High pressure units are available for the cleaning of tank cars which are capable of ejecting a stream of water twice the length of the car.

The progress made in devices for the application of industrial detergents will influence the trends in formulation of such products.

Soil redeposition tests are realistic only if performed with heavily soiled clothes, according to Walter Marple and Albert R. Martin, Whirlpool Corp., St. Joseph, Mich., in a paper titled: "Soil Suspending Power of Soaps and Synthetic Detergents". The behavior of typical soap and synthetic detergent formulations with respect to soil redeposition under home washing conditions cannot be compared by washing a white cloth sample with soiled clothes. Evaluation of detergency and soil redeposition is very complex. Results depend on the detergent, water hardness, degree of soiling, equipment used, and other factors.

The authors evolved a test which calls for laundering heavily soiled clothes, filtering the wash liquor, and measuring the reflectance of the filters. This method was applied to different soaps and synthetic detergents formulated with various builders and used in waters of varying degrees of hardness. Values obtained by this method were found to be realistic. Usefulness of the procedure as a comparative test is increased. One of the limiting factors in this as in other detergency evaluations is the problem of dye transfer.

M. E. Tuvell, Monsanto Chemical Co., St. Louis, contributed a study of "Non-Surfactant Additives in Syndets." The mechan-

ism whereby builders assist detergency and counteract soil redeposition was analyzed. Dealing with the physical chemistry of the washing process the author said that the presence of inorganic salts lowers the critical micelle concentration of an aqueous surfactant solution, decreases interfacial tensions, and increases sorption of surfactants on substrates. In other words, the presence of an inorganic builder affords peak detergency at lower levels of syndet concentration. Certain inorganic salts actually increase a surfactant's peak performance even at these reduced concentrations. In the case of chain phosphates, water softening action is added to the direct effect on surface activity.

The builder properties of the chain phosphates are summarized as follows: Formation of soluble complexes with metal ions, including the calcium and magnesium ions of hard water and sodium ions of the built detergent;

Dispersion, deflocculation, and peptizing of finely divided inorganic solids;

Electrolyte activity, including salting out and dissolubilization of organic substances in aqueous solution as well as the related action of lowering critical micelle concentration for organic actives;

pH buffering, as effected by the small members of the homologous series of chain phosphates which thereby help to control pH and furnish hydroxyl ions;

Inhibition of nucleation of certain crystals, including calcium carbonate.

The mechanism of each of these effects is investigated and each is evaluated as a practical factor in increasing detersive efficiency of built, heavy-duty, general purpose, household detergents.

The author showed van der Waal graphs charting the effect of electrolytes on soil removal and soil redeposition.

"Optical Bleaches in Soaps and Detergents", a paper presented by F. G. Villaume of American Cyanamid Co., New York, outlined

James C. Konen
AOCS President

the history, chemical structure, optical effect, application in soap and detergents, and methods of evaluation of whitening agents. The author pointed out that Lever Brothers Co. was the first American soap manufacturer announcing a soap product incorporating an optical bleach in September 1948. Procter & Gamble followed suit about five weeks later, he said.

Optical bleaches can be classified as dyes if we define a dye as a substance that is able to affix itself to a textile fabric and influence the apparent color of the fabric. The action of an optical dye differs from that of bluing or chemical bleaches. In a bluing operation the blue neutralizes the yellow and produces a whiter but overall darker color. In chemical bleaching the decolorizing effect is obtained by destroying certain colors at the expense of tenderizing the fabric. In optical bleaching a substantive dye is caused to be deposited on the fibers. This dye is sensitive to ultra-violet energy which it converts to visible blue light. By adding blue light instead of subtracting yellow light, the brightener makes the fabric not only less yellow but also less gray and lightens it slightly. Whiteness achieved by chemical bleaching can be further improved by the addition of a brightener.

A brightener's effectiveness in whitening a fiber depends upon how much of it leaves the wash solution and attaches itself to the fiber; on its efficiency in converting ultraviolet light to visible light; and on its shade of fluorescence. The working properties of brighteners in their application from soaps and detergents can be categorized in three main areas: build-up, fastness, and substantivity.

Build-up is a function of two factors: concentration/fluorescence relationship and percentage of exhaustion. The latter is the ratio of the brightener affixing itself to the fiber to the brightener present in the wash solution at the beginning of the cycle. The percentage of exhaustion varies between 40 and 95 per cent with different types of brighteners. Factors that influence the exhaust are washing time, temperature, cloth-to-liquor ratio, type of detergent, builders, and pH.

Fastness means the retention of fluorescence. This can be affected by bleaching compounds, sunlight exposure, alkali and acid. Optical dyes are more sensitive to breakdown by bleaching agents when in solution than when substantively coupled to the cloth. Bleaches should therefore be used at the end of the washing cycle, in the rinse.

Today's commercially available brighteners can be classified into three major groups by their substantivity to various fibers: those substantive to only cellulosic fibers (cotton and viscose rayon); those substantive to nylon as well as to cellulosics; and those substantive only to noncellulosics (nylon, acetate, wool, silk, cellulose triacetate, etc.) These three groups embrace six chemical classes of compounds, each having different substantivity, fastness and compatibility characteristics.

Evaluation methods described include the GM fluorimeter, and visual examination under ultra violet and under daylight. Artificial daylight lamps yield more reliable results than direct sunlight. Fadometer tests are 10 times harsher than daylight exposure and are therefore not generally

suitable as a guide to optical dye breakdown.

J. K. Weil, A. J. Stirton, R. G. Bistline, Jr., and E. W. Maurer, Eastern Regional Research Laboratory, USDA, Philadelphia 18, presented a paper entitled: "Tallow Alcohol Sulfates. Properties in Relation to Chemical Modification." This paper sets up a scientific comparison of a group of saturated tallow alcohol sulfates, modified by chlorination of the double bond, by addition of ethylene oxide in one to four mole ratio and by the formation of triethylammonium salts.

These modifications, represented in a study of 16 compounds, increased the solubility as shown by the Krafft point and caused changes in the critical micelle concentration, surface and interfacial tension, wetting, foaming, detergency, and emulsifying properties, in calcium stability, metallic ion stability, and lime soap dispersing power.

Results of these studies indicate that the detergency of sodium dodecyl sulfate is poor at temperatures studied (60° C) due to its high solubility; that sodium oleyl sulfate and the chloro-derivative have good detergency and foam value, and that the addition of ethylene oxide does nothing to enhance the value of this series of compounds.

"The Use of Surfactants in Petroleum Production," by Todd M. Doscher, Shell Development Co., Houston 25, analysed the problems inherent in the use of surfactants in secondary petroleum oil recovery operations. High cost is the main obstacle to the addition of surfactants to water injected into depleted reservoirs. To be effective they have to be used in concentrations sufficient to reduce appreciably surface tension of water layer. Depletion of surfactant by adsorption onto the rock surface has resulted in unattractive economic appraisal. Tailor made surfactants and formulated systems will be required to overcome these problems. The incentive for their discovery is obvious. Some 25 per cent or more of the oil originally in place in a reservoir is left behind at the conclusion of currently employed methods of secondary recovery. Some work currently in progress points in the direction of a suitable non-substantive detergent for this application.

Other applications of surface active agents in petroleum production are well established. These include their use in the formulation of drilling, completion, acidizing, and fracturing fluids, in breaking oil field emulsions, and in assisting in the control of corrosion and microbiological growth. A number of other potential uses are in various stages of development.

"The Status of Synthetic Detergent Bars" was outlined by John W. McCutcheon, Consulting Chemist, New York. Milled bars have been on the market about twelve years but only within the past several years have they been nationally distributed. Already their impact has been felt on the 250,000 ton per year toilet bar market. The formulation of such products requires the finished product to have specifications equivalent to that of soap yet be serviceable in the hardest of water, leave no bathtub ring and be as mild or milder on skin than soap.

Ideally these bars must be odorless, colorless, non-skin irritating and form no sticky precipitate in hard water. Two classes of material for this purpose are distinguished: the normal type, which does not form calcium and magnesium precipitates under ordinary conditions. This group includes the alcohol sulfates, alkyl aryl sulfonates, taurates of fatty acids, etc.

John McCutcheon
Author Consultant

The second class of detergent material does form hard water precipitates which may be non-sticky. Materials of this class are represented by the substituted fatty acid derivatives such as the alpha-sulfonated stearates, condensation products of fatty amines and aldehydes etc.

The builder may be soap, substituted fatty acid salts, or miscellaneous materials such as polyethylene oxide condensation products, starch, etc., but the author suggested that builders most resembling soap in their physical and chemical aspects would tend to simplify the formulation. Typical formulations may contain two fo eight per cent mineral salts, 20-30 per cent soap, 30-50 per cent detergent base including foam boosters, and 10-30 per cent special auxiliaries such as binders, plasticizers, cold cream, and similar additives.

An examination of five synthetic bars, for pH of a one per cent solution, foam power, texture, sloughing effect, and feel indicated that some bars already commercially available are superior to soap on numerous counts.

It was concluded that synthetic bars have a very promising future and will probably displace regular bars of toilet soaps. However, no undue upset of the tallow market is seen as a consequence of this development.

Morris J. Root, G. Barr & Co., Chicago, presented a study of "Surface Active Agents for Aerosols." Spray products pressurized with fluorinated hydrocarbons have little or no need for surface active agents. Foam aerosols such as shaving cream utilize triethanolamine soap for foaming a propellant in a water emulsion. Alkanolamine fatty acid condensates are added for

(*Turn to Page* 50)

Detergent Adsorption on Soil

By Jay C. Harris
Monsanto Chemical Co.
Central Research Laboratories,
Dayton, O.

IN a cleaning system the components soil, substrate, and detergent in aqueous solution interact (61, 110), and adsorption of surfactant by the other two components occur to greater or lesser degree. A schematic illustration of this is given in Figure 1. It is generally conceded that a soil-surfactant complex is desired that is relatively stable, for otherwise satisfactory rinsing could not occur. Instability of the soil-surfactant complex can result in poor cleansing and may be produced by inactivation of the surfactant (hard water, acid, excess electrolyte), insufficient surfactant, or incorrect balance of the surfactant structure. Almost as undesirable in many cleaning operations is formation of too stable a substrate-surfactant complex, the surfactant being adsorbed so strongly that another cleaning procedure must follow before processing can continue. In cases of high attraction of soil for substrate another undersirable situation could arise in which a soil-substrate-surfactant complex might be formed. In any event, surfactant adsorption does occur, equilibria between the three components of the system are either partially or wholly established, and a degree of substrate cleanliness is achieved.

In an attempt at clarification of the detergent process, the role played by the surfactant needs further elucidation. That adsorption is so important to an understanding may be recognized through its effect on measurable properties of the detergent system. Suspension, deflocculation, and redeposition prevention of soils are brought about by surfactant adsorption on the soil. Particle mobility (zeta potential) is strongly influenced by adsorbed surfactant, and emulsification, solubilization, and wetting are likewise influenced by adsorption.

It should be apparent, therefore, that as a factor in the detergency process, a close examination of this phenomenon is warranted. An attempt will be made to collate available data with the objective of correlating surfactant adsorption with other measurable detergent functions.

Adsorption may be of two types—physical (or van der Waals) or chemisorption—and both are important to the cleaning process. Brunauer (15) has characterized van der Waals adsorption as being mono- or multi-molecular in thickness, non-specific, having a rapid rate, and a lower energy level comparable to condensation phenomena. Chemisorption exhibits a rather high degree of specificity, requires an energy of activation before adsorption occurs, is always unimolecular in thickness, and exhibits energies of the nature of chemical reactions and is more or less irreversible. An experimental criterion of adsorption energy (92) indicates physical adsorption at between 2000 or 10,000 cal./mole, and chemisorption between 10,000 and 100,000 cal./mole.

Adsorption was described quantitatively by Gibbs (31) whose adsorption equation may be written:

$$S = -\frac{c}{RT} \cdot \frac{d\gamma}{dc}$$

where S is the difference between the surface and bulk concentration of the solute, γ is surface tension, and $d\gamma/dc$ is the change in surface tension with change in bulk solute concentration. Thus, when S is positive, the concentration at the interface is greater than in the solution and surface tension is decreased because of the addition of the dissolved substance; when S is negative at adsorption, equilibrium concentration of solute at the interface is less than in the solution. No further elaboration is indicated for this discussion since an excellent summary of the Gibbs relationship and complicating factors is given elsewhere (70).

Methods of Estimation

Methods used for estimation of surfactant films on surfaces are by: Film balance, microscopy, electron microscopy; electron diffraction; X-ray diffraction; infrared spectroscopy; wetting behavior; interferometry; radiotracer and radioautographs; chemical analysis. These methods obviously differ in sensitivity and precision, and some are rather qualitative in character. The radiotracer technique is currently widely used and has much merit for a broad variety of investigations. Much data for air/solution interface measurements have been obtained by the classic film balance procedure. It is not proposed to discuss methodology, but the technique used will be indicated if significant.

Air Solution Interface Characteristics

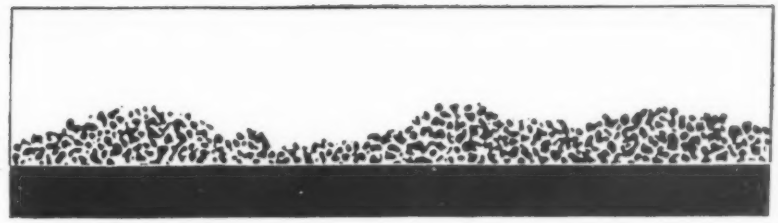
Orientation (adsorption) of surfactant at the air/solution interface generally occurs rather rapidly. It is this adsorption that accounts for lowering of surface tension and ability of a solution to foam. According to Harkins (35) if the structure of the surface of a liquid were at first the same as its interior, the actual surface always was formed by the orientation of the least active portion of the molecule toward the vapor phase. Also that at any surface or interface the

Figure I. Adsorption in the Cleaning Process (53).

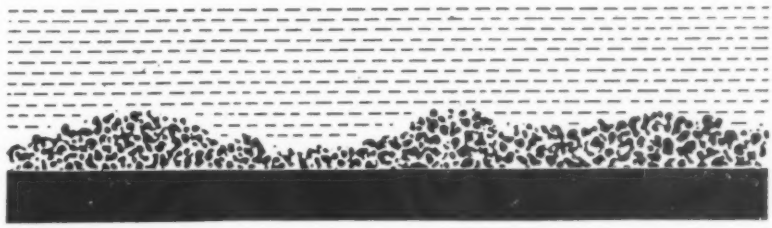
change occurring was such as to make the transition to the adjacent phase less abrupt. Rapidity of saturation of surfaces depends upon the nature of the solute and increases with increase in the length of the nonpolar end of the molecule.

With di-n-octyl sodium sulfosuccinate, after a mono-molecular film is formed at the air/solution interface, further increase in the bulk concentration increases the adsorption at the interface (88). This surfactant may be displaced from the solution surface by di (2-ethylhexyl) sodium sulfosuccinate addition, but is not much changed by various added inorganic salts, alcohols, esters or acids (89). Increases in adsorption at the interface were found also for stearylaminopropyl dimethyl-2-hydroxyethyl ammonium chloride indicating multilayers of considerable depth: The gegenion adsorbed may be partly OH rather than the anion introduced with the agent (47). Tritiated sodium dodecyl sulfate forms a monolayer in water or in a buffer solution at the air/solution interface. Sodium tetradecyl sulfate or dodecanol can displace dodecyl sulfate from the surface, the former being more effective in this than the latter. Tritiated dodecanol gradually disappeared from the surface above the cmc but comprised at least 50 per cent of the mixed film at a sodium dodecyl sulfate concentration of 10^{-3} molar (75).

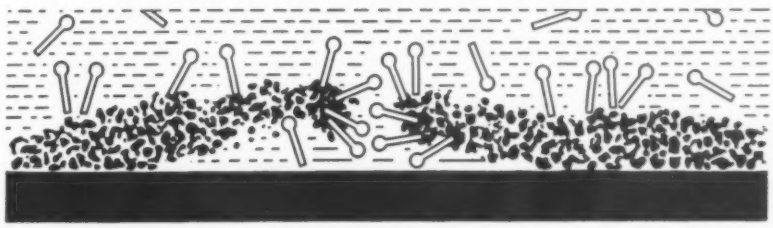
Orientation of as many as 200 monolayers of sodium sulfate in surfactant solutions at the air/solution interface takes place (49). With anionic and nonionic surfactants at the surface, sodium sulfate tends to accumulate in an adjacent region in an amount proportional to the electrolyte concen-



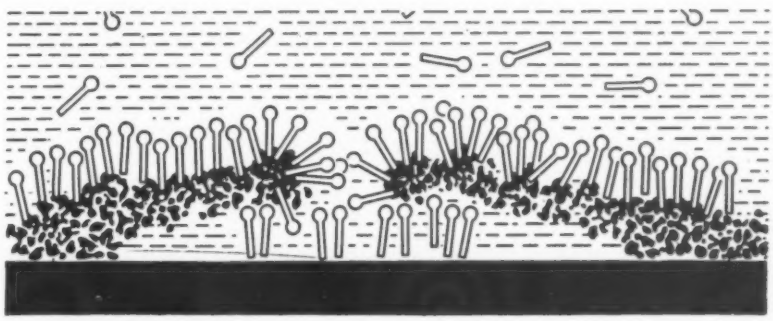
DETERGENT ACTION is depicted in a highly schematic manner by these five diagrams. Here a surface is covered with particles of greasy dirt.



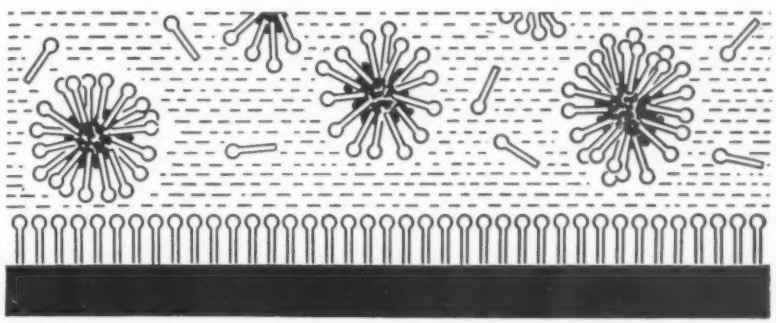
WATER IS ADDED but fails to dislodge the dirt largely because the surface tension of water is too high to permit the most efficient wetting.



DETERGENT IS ADDED to the water. The hydrophobic ends of the detergent molecules are attracted to the surface between the water and the dirt.



HYDROPHOBIC ENDS of the detergent molecules line up both on the dirt and the surface. The dirt may now be dislodged by mechanical action.



DIRT IS HELD SUSPENDED in the solution because the detergent molecules form a layer on the cleaned surface and surround the dirt particles.

tration. Presence of sodium sulfate reduced the adsorption of sodium dodecyl sulfate on some surfaces, perhaps as a result of competition for adsorption sites (114). At air/solution interfaces where adsorption of surfactant can be shown, gegenions or foreign ions are not actually adsorbed, but accumulate in the region of the Gouy-Chapman layer adjacent to the interface (48). Nonionic surfactants are said to differ from anionics in that their orientation in the surface region contributes to the adsorption of electrolyte in the same region. However, the amount of sulfate adsorbed under comparable conditions was roughly the same for cationic, anionic or nonionic agents (49).

Monomolecular films cover given areas per molecule and have thicknesses dependent upon the configuration and carbon chain length of the hydrophobe. Thorough discussions of these factors can be found by Adam (2), Harkins (34) and Langmuir (56), but only the salient characteristics of these films will be considered here.

The characteristics of molecular films most frequently are ascertained by measurement with a film balance (56). *Gaseous* films are in an expanded state and the molecules though oriented, are mobile, moving about freely on the surface. These films are regarded as two-dimensional because the monomolecular layer area is great compared with its thickness. *Condensed* films have rigid orientation restraining free movement of the molecules which are closely packed. Two types are recognized (2): Those whose heads are arranged by compression, the heads either being compressible or more likely tucked away into the chains of neighboring molecules; a second type consists of close packed heads not rearranged by compression but the molecules are held apart by the head structure. *Expanded* films are intermediate between the gaseous and condensed states, often found with long-chain aliphatic compounds. (An example is oleic acid because of its centrally located unsaturated bond.) Two types of expanded films are recognized; coherent "liquid-expanded" and noncoherent "vapor-expanded". Expanded films tend to occupy definite areas at low compressions (about 48 A^2 at room temperature) but at areas larger than this the film becomes heterogeneous. When there are two or three long chains in the molecule, the areas of the expanded films are slightly less than two or three times that of a similar compound with only one chain in the molecule. Glycol dilaurate for example has an area of 83 A^2 or about 85 per cent of that of two separate chains, and triglycerides occupy an area in the expanded state 75-80 per cent of three separate chains.

A very comprehensive review of the data concerning the character of the surface zone of a liquid has been made by Henniker (41A). These data seem to demonstrate that the surface zone of a liquid is not merely a monomolecular layer below which unaltered liquid exists, but is a region in which orientation extends to the depth of many molecules.

Again, this phase of the subject could be expanded considerably, as it is an area where a large volume of work continues to be done. Only sufficient discussion has been included to outline very briefly the subject in relation to adsorption on solid surfaces.

Molecular Film Structure

An understanding of the characteristics of surface films comes from appreciation of the structural features of the molecules. Adsorbed molecules have length, breadth, and a more or less regular arrangement of the atoms of which the CH_2 group frequently is the key. Adsorbed molecules may be arranged regularly with respect to the surface, occupy certain volumes of space, may be mobile or if not mobile may rotate about the C-C links. Specific examples of the structure of molecules and their spatial relations follow.

With palmitic acid as an example, Adam (2) demonstrated that as it has a molecular volume of 300 cc, one molecule has a volume of 495 A^3, a cross section as measured of 20.5 A^2, so that the length perpendicular to the surface must be 24.2 A, provided that the density of the films is the same as that in the bulk. The molar volume of a single CH_2 group was determined as 29.4 A^3: the cross sectional area was 20.5 A^2, and the length of each CH_2 group perpendicular to the surface, or the vertical height of one carbon above the other was about 1.43 A (1.54 A by X-ray measurement). This indicated that the carbons were arranged in zig-zag form either vertically or very steeply oriented to the surface.

Electron diffraction studies of metal surfaces filmed with aliphatic esters and alcohols showed orientation of the first layer with the hydrocarbon chains normal to the surface (90). Films of fatty acids on glass from cetane solution were varied in density and investigated by electron diffraction. These patterns showed that the average tilt to the surface normally increased with decreased molecule length but that no other apparent change could be seen (10). Similar studies with fatty acids and soaps, showed the same orientation of the hydrocarbon chains, but other orientations could be obtained by rubbing (64). Molecular adsorption of sodium stearate on nitrocellulose films was shown by the same technique (14). These films were shown as standing vertically, forming two-dimensional hexagonal crystals, were easily washed off, but age or higher temperature made removal more difficult.

In reviewing Langmuir's work it was pointed out (2) that the length of the fatty acid hydrocarbon chains made no difference in the shape of the film compression curve, provided that there

were more than 14 carbons in the molecule. With variation in carbon chain length of from 14 to 34 carbons, the area covered per molecule remained at 20.5 A^2. The fact that areas covered do not change as the length of the hydrocarbon chain was varied was said to prove that the molecules were steeply oriented to the surface and all the same angles in all the films.

The presence of a double bond and bending of the molecule was said to cause more difficulty in packing, and accounts for the larger area covered by unsaturated fatty acids (2).

In monolayer fluid states the carbon skeletons do not remain planar, but are deformed momentarily by rotation around C-C links, take up configurations resulting from the effect of thermal agitation, van der Waals forces, steric hindrances due to neighboring molecules, and constancy of angles of the aliphatic linkages (46).

Evidence of the mobility of solid fatty acids was shown by electron diffraction (97) where stearic acid monolayers reacted with copper to form crystallites, and the diffusion of molecules in a monomolecular layer of C_{14} tagged stearic acid to the aluminum atoms of mica to form aluminum stearate (9) both these effects occurring at temperatures much below the melting point.

Films adsorbed from nonpolar liquids on glass, steel and platinum show that an oleophobic monolayer must be comprised of molecules capable of approximating a close-packed orientation. The surfactant or polar grouping must be located at one extremity of the molecule with one or more methyl groups located at the opposite end. The molecules must adsorb to a flat solid surface with sufficiently close-packing that the outermost portion of the film is essentially a plane surface, densely populated with methyl groups. Some molecules adsorb at both polar end groupings and unsaturated bonds and thus are arranged more horizontally (11).

Surface films of cellulose derivatives on aqueous solutions gave indication that the chains lie with every glucose ring nearly flat on the water, the chains are flexible and may be vibrating vigorously in the plane surface at low compressions. Differences in ease of spreading between different derivatives were said to be due partially to differences in adhesion of the esterified or ether groups to water and partly to lateral adhesion between the chains (1).

Acids, more basic amines and any other polar molecules capable of ionizing at an oil-water interface (at proper pH) are known to be 1000 times more adsorbable at metal interfaces than comparable alcohols, esters, ketones, phenols, or other polar molecules not capable of ionizing. These differences were attributed to the ability of the H of the acid and the N atom of the amine to coordinate with electrons in the metal surface (7).

The foregoing discussion merely suggests the considerable volume of work which this field encompasses. Adsorbed molecules have length and breadth and cover characteristic areas per molecule. The CH_2 groups are arranged in zig-zag fashion and the molecules may be oriented vertically or in a tilt to the surface norm, all at the same angle. Packing of the molecules in a layer is made more complicated by the bending induced by double bonds, by branching of the chain or by combinations of molecules of regular and irregular contour. More than one polar grouping and unsaturated bonds tend to result in a more horizontal arrangement. The carbon skeletons may be anchored, but the chains rotate around the C-C linkages and deformation of the film can result from thermal agitation, van der Waals forces and steric hindrance. Even stearic acid much below its melting point is relatively mobile in the adsorbed layer. Differences in degree of adsorbability of polar groupings exist, the high adsorbability of acids and more basic amines on metals being attributed to the ability of the H of the acids and the N atom of the amine to coordinate with the electrons of the surface adsorbent.

(To be continued)

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Management's Accomplishments and Responsibilities in the American Economy

FIRST, I want to thank the membership of the American Management Association and the American Society of Mechanical Engineers for this medal. I appreciate your honoring me with it.

I'm sure that earlier recipients of the Gantt Award have been so impressed by the basis for the award that they took it as the general subject of their remarks. I am equally certain, however, that each has approached the subject from a different direction because the broad theme of "industrial management as a service to the community" can mean so many different things.

For the next few minutes, I would like to talk with you about my impressions of the ways industrial management has served the entire country in past years and the reasons this kind of service was possible.

In these days of international tension and a vast array of domestic problems, it seems to me that a man can renew his optimism and revitalize his faith in this great country, *if* he'll only take time now and then to think carefully about those many, many things which made America so strong, so great.

A careful look at any period of more than 10 years in the history of the United Sttaes shows clearly that our country has always had a *basic strength* and *a will to get things done* which haven't been matched by *any* country on earth.

Look backward for 50 years, for example. That half-century, incidentally, just about matches my experience in industry, for I started to work for Procter & Gamble in 1905. I think I'm right in saying that never at any other time in world history has there been such progress made in *any* country. Our growth as a country has been amazing.

I'm not going to recite a long list of figures to illustrate the kind of growth and progress we've had in the last 50 years, but I do want to mention a couple of facts about the earnings and productivity of the average manufacturing worker.

Of course, taxes and inflation have greatly reduced the value of a dollar since 1908, but not enough to keep the average manufacturing employee from being a great deal better off today. His *real hourly income – after* accounting for the changed dollar value – is about *three times* what it was in 1908, when you include some of the many fringe benefits he now receives.

The average employee also has a great deal more job security; his work is much easier and safer, and his working conditions have been vastly improved. Add all these to the tripled real income and it's easy to see how he is tremendously better off today.

Here's the other fact which goes right along with increased earnings: the average manufacturing employee today is producing *about three times* as much as 50 years ago, although he only works 40 hours a week compared with 57 hours for the worker of 1908.

Increased Productivity

In that fact of increased productivity is the key to our improved standard of living in this country. Management, aided immensely by scientists, has been responsible for this increase. Through pure and applied research, productivity of man has increased tremendously. It's unbelievable what the world, the United States in particular, owes to this combination of management and scientists. I don't think anything has changed the course of Western civilization more in this century than rising productivity in America.

The future should bring a continuing rise – and it will if Americans show their historical good sense and reject the idea that the standard of living can be raised by wage and salary increases alone –if they continue to realize that the only way we can have a real and legitimate increase in the standard of living is through increasing productivity per person.

Throughout the last 50 years, we have seen inventions–new ideas–coupled with a growing population and the typically-American imagination and spirit, make the United States into practically

*A talk given before the Fall Personnel Conference of the American Management Association, New York, Sept. 24, 1958.

a new and different country every 10 to 20 years.

We've gone through 50 years which saw two devastating world wars; a third war, localized but still horrible; and the continuing threats of more wars. Even with the terrific cost of defense due to the cold war, even with much of the world including our own country moving toward the theories of socialism, even with taxes at levels undreamed of a few decades ago, the United States has had a fabulous growth and has remained basically sound.

Now, *how* have we done all this? *Where* did we get the strength? Certainly there is no "pat" answer, but *freedom* and *character* must stand high on the list.

Freedom of Initiative

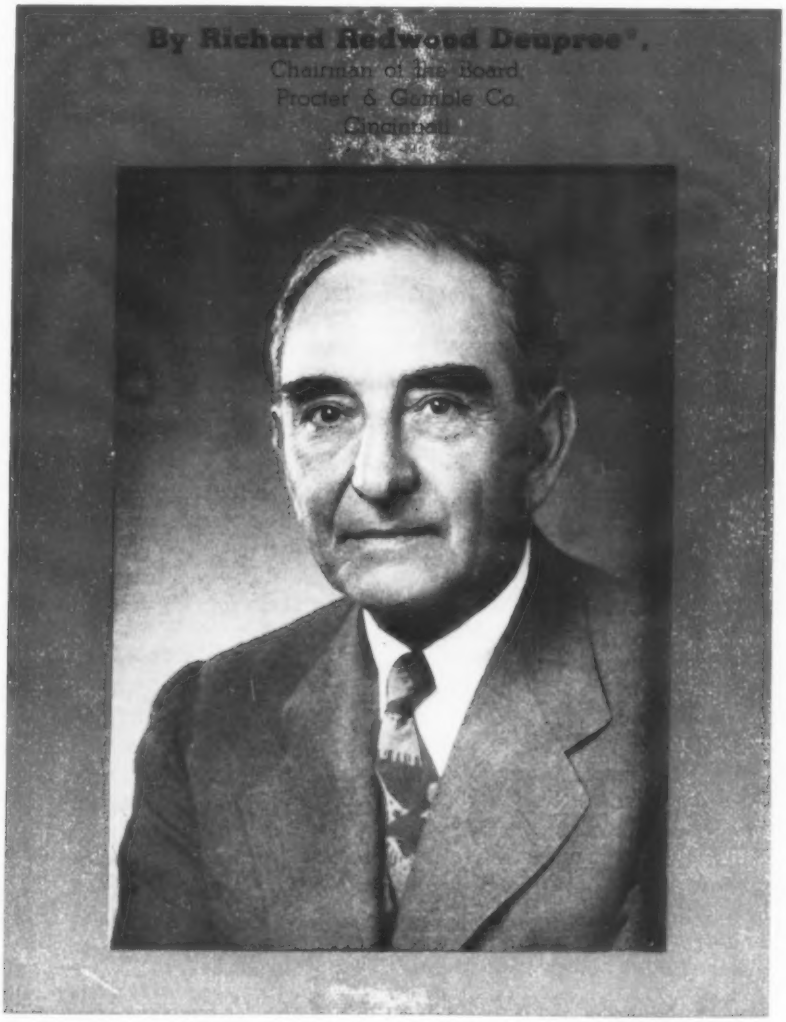
In my view, the real strength and backbone of our country lies in a ***kind*** of freedom we have which isn't duplicated in any other country. That is "freedom of *individual initiative*"—the freedom of the individual to exercise his own initiative in whatever way that seems best to him.

The greatest force for accomplishment which we have, as individuals and as a country, is the right to exercise our individuality, to live by our minds, to set for ourselves goals in life, and to make the fullest use of our talents to reach those goals.

Living and working in this kind of atmosphere results in our people having great individual strength and strong character. Most of our people value character and principle; they have a sense of honor as individuals and as citizens; they have a desire to keep moving forward and to help others keep moving forward.

People of this caliber — by their actions — have created what we call the "typically-American spirit," that *something* which Americans have in more abundance than the people of any other country. It is the kind of spirit which makes us feel confident about our ability to meet the problems of today and of the future.

It has been the *continuing exercise* of freedom of initiative by millions of people which created a genuine industrial revolution in the United States, a revolution not nearly over.



Industrial Management

I do not think any *single group* in this country has had such a large role as industrial management in leading the United States through its unmatched growth. I'm including in that group both the men who started and ran their own businesses and the managers of businesses owned by others. And I'm qualifying all of this by saying it has been *enlightened* management; not just management, but management of character.

Many other institutions and other factors in our society have had an important part in this dynamic growth — government, church, education, the professions, etc. But I still believe that industry has made one of the biggest contributions and has provided the *continuity* of progress. Industry—guided by enlightened owners and managers—has been the *"welding force"* of the American economy.

Industrial management has been able to create that "welding force" only because of freedom of initiative. As applied to business and industry, it means freedom to build plants, to employ people, to make and sell useful products, to band people together as part-owners through sale of equity (common stock) to finance a new enter-

prise or expansion, and to make a profit *or* take a loss.

The tremendous expansion in business enterprise in the United States came only because our people, individually or in groups, were given the *incentive* to risk their time and money in *search of profit*. This search for profit through exercise of initiative has been a major generating force in the growth of our whole society in the United States.

Productivity

Our steady rise of productivity certainly has been generated by that search for profits. And, as I said earlier, I don't think anything in history has had so much influence on Western civilization as increasing productivity.

Unfortunately, in other parts of the world and even in our own country, a lot of people will say that our greatly improved standard of living which resulted from rising productivity is nothing but an *economic* achievement. It's much more than that. In my opinion, the standard of living enjoyed in our country today represents history's greatest *social* and *cultural* achievement.

Because of the major role it has played in increasing productivity, industrial management has, I think, performed a magnificent service for the country which goes far beyond *material* progress. By its deeds, management has also stimulated *cultural* and *social* progress in the United States.

I wish more people really understood the nature and scope of the service industrial managers have performed for the United States, not just in material progress, although that has been substantial and has provided a solid foundation for other progress.

Of course, it might be said that industrial managers really only have *one* job—to manage an efficient business which develops a profit for the owners of the business. That's true as far as it goes. What is perhaps not understood as well as it should be is that managers have accepted and developed important concepts of their responsibilities to society as a whole.

Public Interest

In their search for profits for owners of the business, for example, managers have accepted the fact that the *profit motive must not override or ignore the best interests of the public in general*, or of specific groups such as employees, customers, residents of plant communities, suppliers and others.

No matter what kind of business a manager heads, no matter the size of that business, the good manager is always concerned about the effects of his decisions on the public and no decision is knowingly made that will not ultimately be in the interest of the general public as well as the business for which he is making the decision.

The field of employee relations, in particular, has been an area where management has accepted, *voluntarily*, more and more responsibilities beyond the matters of wages, fringe benefits and working conditions. All of these responsibilities are wrapped up in the idea that *you can't really separate the primary interests of a company from the primary interests of its employees.*

The recognition by management that its responsibilities go beyond making and selling products is visible all around us today in such things as the great amount of time and energy devoted by managers as individuals to all kinds of civic, educational and cultural activities, locally and nationally; and in the tremendous sums of money contributed by business and industry to educational, health and welfare causes.

There is one service which industrial management has performed for this country which I'd like to mention at this point. From the beginning of industrial management, we have had countless thousands of men who started in a business in a lowly apprentice job and moved up to important executive responsibilities. More than any other group, in my opinion, industrial management established in this country the principle that a man should be picked and rewarded for what he can contribute to society as a man, *no matter who he is or whence he came.* The opportunity for a man to start at the bottom and work his way up—*if* he has what it takes in initiative and ability—is now an American tradition. It has spread past business and industry to all parts of American life, and it has been *good* for the country.

When I think of all the services management has performed for this country, particularly during the last 20 or so years, the most amazing thing is that these could be done despite the fact that the job of management has become so much more complex in our rapidly-changing economy. Management is constantly faced by new problems, new stresses and strains, in its efforts to keep pace with a growing country.

Federal Controls

For example, one problem which really concerns everyone because of the importance of competition to our economy is the question of federal government *controls* of competition.

Competition has not only been a tremendous *economic stimulus* in the United States; it has also been of *immense value to consumers* in terms of new products and new services.

One of the major reasons why this country jumped so far ahead of Europe during the first half of this century has been the nature of our competitive system. In Europe they had the idea that intense competition wasn't really practical, so they decided to adopt monopolies and cartels. This led to economic chaos. Once in being, the monopolies and cartels had things pretty much their own way. They proceeded to sit and agree among themselves until the economies of their countries were near strangulation.

I heard our Ambassador to Great Britain say a few years ago that one of the greatest misfortunes that had come to Great Britain was the fact that they had no laws there to prohibit monopolies, trusts or cartels. He had seen the condition in which a great many industries in that country had gotten themselves because of the *absence of real competition.*

In America it was different. Seeing that uncontrolled competition was leading to a situation where the consumer wasn't properly protected against the unfair actions of giant trusts, Americans rightfully decided that certain governmental controls were necessary. Thus came into being—for protection of consumers— the Sherman and Clayton anti-trust laws, in 1908 and 1914, respectively. These laws were needed and they've been good for our country.

The proper protection of consumers in the United States demands that we have anti-trust laws which make *good economic sense* and can be *easily understood and interpreted.* Right now I'm concerned about the recent trend of thinking of those persons responsible for enforcing the Sherman and Clayton laws. In recent years they've been developing some disturbing philosophies as to what those laws really *mean.*

They have even gone so far recently to say that a given company, because of its ability to manufacture and market good products efficiently, *may* become a monopoly and, therefore, should be restrained in some way. This means, in effect, that the *successful company* is subject to being *penalized* because of its success.

Personally, I believe that most of the businesses today are making every effort to live up to the letter and spirit of the law. But when the government agency begins to reason that your *potential* power, *because of efficiency in serving consumers,* is so great that you *may* create a monopoly, I think they are losing sight of the reasons why these laws were passed in the first place—*to protect consumers.*

My only reason for bringing this matter up is because I believe so firmly in competition as a great strength of our country. I hate to see business in general harassed and put to great effort and expense on matters that should be reasonably clear to any *fair-minded man,* be he a government official or a judge.

The economy of America has changed so radically since the Sherman and Clayton acts were passed that I believe this country now needs a *new approach* to the question of the Federal government's controls of competition, one more in keeping with the nature of today's economy.

New Approach

I think this new approach should be based on *three* simple principles. First, *competition is good and necessary.* Second, *certain legal controls of competition are good and necessary.* Third, these legal controls, however, should be designed to *preserve competition* and *protect consumers,* not to protect the *inefficient* producer.

The uncertainty which now exists about what is right and what is wrong is a very difficult question for management to handle. I simply speak for *clarification,* a definite policy by government regarding unfair competition, so that industrial management may have some idea of what it can and cannot do.

In this situation, as in so many other instances of governmental controls affecting business and industry, management faces a perplexing problem which puts a damper on its freedom and initiative. And I believe *everybody* has a stake in solving the problem if our great growth as a nation is to continue.

Summary

Now to summarize: The kind of freedom we have in this country has made it possible for us to have a growth and development —materially, socially and culturally —such as the world has never seen. Through the exercise of our initiative and the use of our abilities, individually and in groups, we have made our country a world leader, a beacon of light for the whole world to look at.

Industrial management has led the way to steadily rising productivity which, in turn, has made possible a better and better standard of living for our people. When you compare how well off the average American is against the average person in Europe, it's easy to see the great differnce in favor of the American, whether it's on the basis of income, personal comforts, leisure time, health, or—what is quite important – *opportunity to better himself,* to lift himself by his own ability and initiative.

Looking toward the future, I'm optimistic, despite our domestic and international problems. We've had problems just as bad in the past and solved them.

I don't want to try to predict where we'll be, for example, 20 years from today. I've heard and read what many thinking, knowledgeable people have had to say about the advances likely to come in the next 10 to 20 years in transportation, communication, agriculture, health, and other things so important to the individual. What they predict is amazing. If it comes—and I think it will—the future is brighter than it has ever been in our history.

You can't disagree with these predictions very much when you think back 20 or 25 years. We would have thought a man was crazy then if he had accurately predicted where we'd be today. As a matter of fact, I don't know of anyone who ever dreamed then of conditions that exist in 1958.

Industrial management, if it is going to continue to perform valuable services for the nation, has a definite responsibility right now to *get ready* for the great growth that is sure to come. I know that we in our business figure that our

(*Turn to Page* 178)

Alkylolamide Detergents

By T. H. Kritchevsky*
Stepan Chemical Co.
Chicago

IN 1937 a new class of detergents based on the condensation of fatty acids with alkylolamides was described in the patent literature. This important development resulted from Dr. Wolf Kritchevsky's work on transformation of water soluble dyestuffs into oil soluble types. He observed that acidic dyes containing carboxyl groups could be precipitated by basic dyes containing amino groups. He treated water soluble acid dyes with alkylolamine fatty acid esters such as oleyl ethanolamine and obtained oil soluble types

When preparing the esters Dr. Kritchevsky made a significant observation: by heating one mole of coconut fatty acid with one mole of diethanolamine a water insoluble condensate was made, as expected; however, the presence of an extra mole of diethanolamine modified the reaction so as to yield a water soluble product.

Chemistry

Essentially, there are two classes of alkylolamides, the mono and the disubstituted. Both types can be made either by the conventional process starting with fatty acid, or by the newer high activity process using fatty methyl esters or oils in a base catalysed reaction with amine.

The disubstituted alkylolamides, will be discussed first, particularly diethanolamides prepared by the conventional process as taught in the original Ninol patents. This method calls for one mole of fatty acids to be heated with two moles of diethanolamine at 140-160°C. The resulting product has perhaps the most complex composition of any of the other types of amide. As prepared in our production facilities and as analyzed by our analytical group its approximate composition is as follows: 60-70 per cent fatty diethanolamide, 25-30 per cent diethanolamine; very low ester content (under 3) and about three to five per cent free fatty acid. Any ester present is probably mainly ester amine with smaller quantities of ester amide. As a result of the relatively high temperatures and time of reaction it is not surprising that some of the excess diethanolamine condenses to form N,N' hydroxethyl piperazine and possibly other cyclic derivatives.

The excess of DEA is required in this reaction to suppress undesired ester formation, which occurs preferentially when one mole of a fatty acid is condensed with one mole of diethanolamine. The mechanism here is still a mystery.

If, on the other hand, under the same reaction conditions we react one mole of a fatty acid with one mole of a primary alkylolamine such as monoethanolamine or monoisopropanolamine, instead of getting a preponderance of ester formation the equilibrium is greatly in favor of amide. Approximate analysis of a fatty monoisopropanolamide is as follows: ester, about three to five per cent free amine under one per cent free fatty acid under one per cent, amide somewhere in the 90-90 per cent range.

The newer high activity process, which is a base catalysed reaction between a fatty ester and an alkylolamine, is a lower temperature reaction than the conventional process. Diethanolamide of 88-95 per cent amide content can be produced without using a 100 per cent excess of diethanolamine.

Diethanolamides made by the above methods have the following approximate analysis:

	per cent
Diethanolamide	88-89
Soap	2 or less
Free DEA	5-6
Ester (as amide)	3 or less

In all cases ester content is determined by infra red analysis using pure amide and pure ester amide as standards. Analysis for free amine, free fatty acid, combined amine and fatty acid, soap, etc., are standard procedures.

Properties

The alykylolamides can be considered essentially nonionic in behavior. Where the condensation has been carried to completion, these products appear entirely compatible with both cationic and anionic surfactants over a wide pH range. It is usual, however, to leave three to five per cent or uncondensed fatty acid in the conventional 2:1 condensates, forming amine soap. This destroys compatibility with cationics, but on the other hand enhances water solubility. The high activity amides are not so soluble as the regular "Ninols," due to the absence of the soaps and excess diethanolamine.

*Paper presented at the 44th midyear meeting of the Chemical Specialties Manufacturers Association, Cincinnati, May 23, 1958.

but when used in conjunction with sulfates, sulfonates or other surfactants, their solubility is enhanced. The monoethanolamides and isopropanolamides are waxy solids, not very soluble in water, and are used mainly in powdered detergents.

Viscosity

One of the outstanding properties of the alkylolamides is their ability to thicken liquid detergents of various types. This property seems to be correlated with amide content, since the high activity amides are superior in this respect. Many shampoo formulations contain lauryl sulfate together with alkylolamides as thickening and hair conditioning agents. If one plots the change in viscosity of a 15 per cent active solution of this type as the ratio of various "Ninols" to sodium lauryl sulfate is progressively altered, it can be shown that "Ninol AA62 Extra," a high activity, lauric diethanolamide, is a much more effective thickening agent than "Ninol AA62," the regular lauric diethanolamide. The "extra" reaches a peak of 10,000 cps, whereas the regular does not exceed 1,500 cps. Similar results are obtained with amine neutralized lauryl sulfates and "Ninols," and also with sodium alkyl aryl sulfonates and "Ninols," although the general viscosity levels are not high as with the lauryl sulfates.

Foam Stabilization

Perhaps the most important property of the alkylolamides from a commercial standpoint is their foam stabilizing action when used in conjunction with alkyl aryl sulfonates and/or lauryl sulfates in laundry and dishwashing detergents, both of the liquid and powder types. By foam stability we mean the persistance of detergent foams in the presence of grease and other soils, rather than the behavior of foams in clear water. In the absence of soil, most of the sulfates and sulfonate detergents foam and persist well; but when greasy soils from dishes or clothes are introduced, defoaming action sets in.

T. H. Kritchevsky

In 1955, Sanders et al. of the Ninol Laboratories described a dishwashing test using a standard soil. Results showed that the foam stabilizing power of an amide preparation was proportional to the amide content. In reports from the same laboratory and others, it was also shown that this property is most pronounced with the lauric alklylolamide, and rapidly decreases if the fatty acid chain is lengthened or shortened. Diethanolamides impart high foam stability to alkyl aryl sulfonates in both distilled and tap water (Chicago 125 ppm) but in Navy synthetic hard water (350 ppm) the stabilization is decreased somewhat. Addition of polyphosphates does not have any definite effect on the sulfonate-amide blend in softer waters, but helps restore foam stability in hard water. The monoalkylamides seem to require the presence of phosphates in order to attain maximum foam stabilizing actions with alkyl aryl sulfonates. This offers no problem in practice, since the monoethanolamides and monoisopropanol amides, which are water insoluble types, would normally be used in spray dried synthetics containing large amounts of polyphosphates in the beads.

Corrosion Inhibition

Another unique property of the alkylamides is their rust inhibiting power in aqueous solutions. As little as 0.5 per cent of a "Ninol" in water will give nonrusting solutions, whereas most other surfactants accelerate rusting of steel. The high activity amides also act as inhibitors. However, when sulfonated detergents are also present, these amides are not as effective in suppressing the rusting action of the anionics as are the regular "Ninols."

Applications

The unusual characteristics of the alkylamides, such as their thickening, foam stabilizing, and rust inhibiting action, have tended to divert attention from their detergent properties. Actually the ethanolamides are excellent detergents in themselves, and also markedly enhance the detergency of various anionic and nonionic detergents.

While the total quantity of the various alkylolamides used today is not definitely known, a reasonable estimate would place the figure at about 25 million pounds.

More than half of this is probably going into powdered and liquid household detergents for dishwashing and laundering, where the alkylolamides are used to improve the action of the alkyl aryl sulfonate base. In fact, the outstanding foam-stabilizing action of the lauric amides has helped to make the use of the low cost alkyl aryls possible in this field. Without them, the rapid collapse of

Alkylolamides improve foam, detergency, viscosity and anticorrosive action of syndets and specialties.

suds in the presence of soil would make the retail products unacceptable to the housewife.

In addition to boosting suds, the alkylolamides markedly increase the cleaning action of the alkyl aryls, since these nonionic detergents possess excellent soil-removal properties. Numerous studies have demonstrated the value of the alkylolamides for scouring wool or washing cottons in textile plants.

Textile finishes are another important outlet for alkylolamides, where certain stearic derivatives are used as softening agents for a variety of fibers. Many antistatic compounds and dye-leveling agents are also based on alkylolamides.

Several different types of alkylolamides are used as thickeners for lauryl sulfate based shampoos to produce the desired viscosity. In addition, they improve flash foam and impart some hair conditioning properties. Other amides are used in liquid cream shampoos as opacifying and pearlescing agents, and in clear coconut soap shampoos to improve rinsability. The addition of alkylolamides to aerosol shave cream appears to lend crispness to the lather produced.

Certain oil-soluble alkylolamides form very stable water-in-oil emulsions, and are therefore used in such items as pharmaceutical absorption bases, dry-cleaning soaps, and fuel-oil additives.

The water-soluble amides are also widely used in industrial liquid cleaners for floors, equipment, and other maintenance jobs. In such products the high viscosity, rust inhibition, and detergency of the water-soluble alkylolamides lend just the right combination of properties to the cleaners.

Miscellaneous applications cover a wide range of uses from rust-inhibiting protective oils to latex stabilizers, and the list is growing constantly.

Detergent Trends

(*From Page 39*)

foam stability. Hydrocarbon liquid propellants require different emulsifiers from the chlorinated types.

The advent of the nitrogen pressure package will increase the use of surfactants in aerosols. Tooth paste, hand lotion, hair dressings, and vitamins in pressurized packages will require wetting agents for detergency, emulsification, wetting, conditioning, and dispersing.

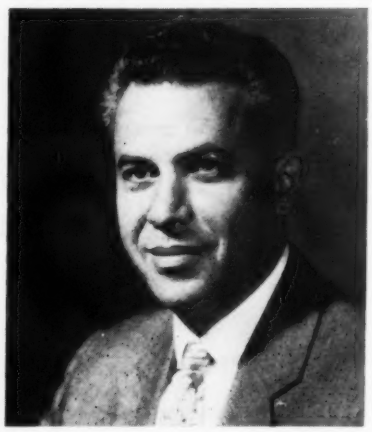
Corrosion is one of the critical factors in the choice of a surfactant for use in the pressurized metal container. Corrosion hazard, particularly at the metal/metal interface may be increased by the presence of a surface active agent. Inorganic salts present in such emulsifiers may increase corrosion problems in direct relationto their concentrations. The corrosive action may be ascribed to electrolytic action of two metals, and, when this occurs the plastic liner may not give satisfactory protection. Examples were show where tin cans had pin-hole leakes even though the majority of the inner surfaces were free from attack.

The pH of the contents also is a factor in corrosion being adversely affected by both high and low values. Recently aluminum has been made available as an aerosol packaging medium.

Last paper in the synthetic detergent symposium by J. D. Knight and R. House, California Research Corp., Richmond, dealt with "Analysis of Surfactant Mixtures." A method was presented for analyzing surfactant mixtures by recovery and identification of the hydrophobic portion of the molecule. Separation of the hydrophobic part of the chain is accomplished by hydrolysis in boiling phosphoric acid at 215°C. Alkylphenoxy alcohols give mixtures of alcohols or olefins in which the aromatic portion of the chain is destroyed. The alpha-sulfo fatty acids are not decomposed by this treatment.

The use of a 175°C boiling acid was discussed as a means of milder treatment for more fragile groups. Important data on surfactants may possibly be obtained by multiple step decompositions.

Morris J. Root



The method involves decomposing, steam distilling the resulting products, and separating them into acidic and neutral portions. These are subsequently analyzed by gas chromatography.

Information presented is mainly exploratory with respect to yields obtained from known compositions, indicates why 215°C and 175°C were chosen as decomposition temperatures.

In the general session on Monday morning, Oct. 20, Fredrik T. E. Palmqvist, Aktiebolaget Separator, Stockholm Sweden, and Frank E. Sullivan, De Laval Separator Co., Poughkeepsie, N. Y., presented "A New Approach in Continuous Soapmaking—Constant Composition Control." The "Centripure Process," a recently developed hermetically closed, completely automatic soap making process was decribed. Amounts of lye necessary for saponification as well as of brine for washing and fitting are regulated by the automatic "Constant Composition" control system. Core of the process is the hermetic separator, a centrifuge of special design which allows regulation of separation efficiency during processing. The system is adaptable to manufacture of toilet, household, and industrial soaps.

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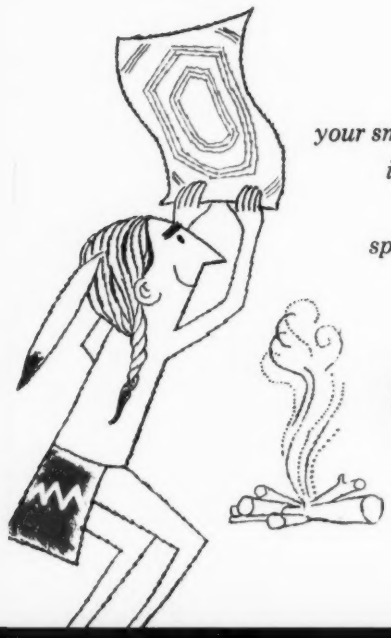

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Metso Anhydrous is the sodium metasilicate that contains the highest soluble silica (SiO_2) content. Here is a true anhydrous metasilicate because impurities such as sodium carbonate are low.

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Associates: *Philadelphia Quartz Co. of Calif. Berkeley & Los Angeles, Calif.; Tacoma, Wash.; National Silicates Limited, Toronto, Canada*
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Another new development using

B.F.Goodrich Chemical *raw materials*

Klub Seal, a golf club reconditioner and sealer, is just one of the products now being sold successfully by Thompson Distributing Company, Hammond, Indiana, using Good-rite Carbopol 934, supplied by B.F.Goodrich Chemical Company.

"Carbopol® 934 gave us perfect texture, penetration and stability . . . *speeded production, too"*

LISTEN to what the manufacturer of this new golf club reconditioner and sealer says: "We experimented with many gums and thickeners. None proved satisfactory except Carbopol 934. It not only gave us specified results, it also speeded and simplified production."

The results this manufacturer wanted were perfect spreadability, ease of application and wipe-off, and a brilliant gloss completely free from oil and grease. In addition, he asked for 100% stability. Good-rite Carbopol 934 produced them all—and after only a few months of marketing, demand has made it necessary to expand production facilities.

Here's another example of the way Good-rite Carbopol 934 can improve a product, its manufacture and its sales. For samples and more information, write Department RC-6, B.F.Goodrich Chemical Company, 3135 Euclid Avenue, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.

SEE US AT BOOTH NO. 509
8TH NATIONAL
PLASTICS EXPOSITION
NOV. 17-21
INT'L AMPHITHEATRE—CHICAGO

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a division of The B.F.Goodrich Company

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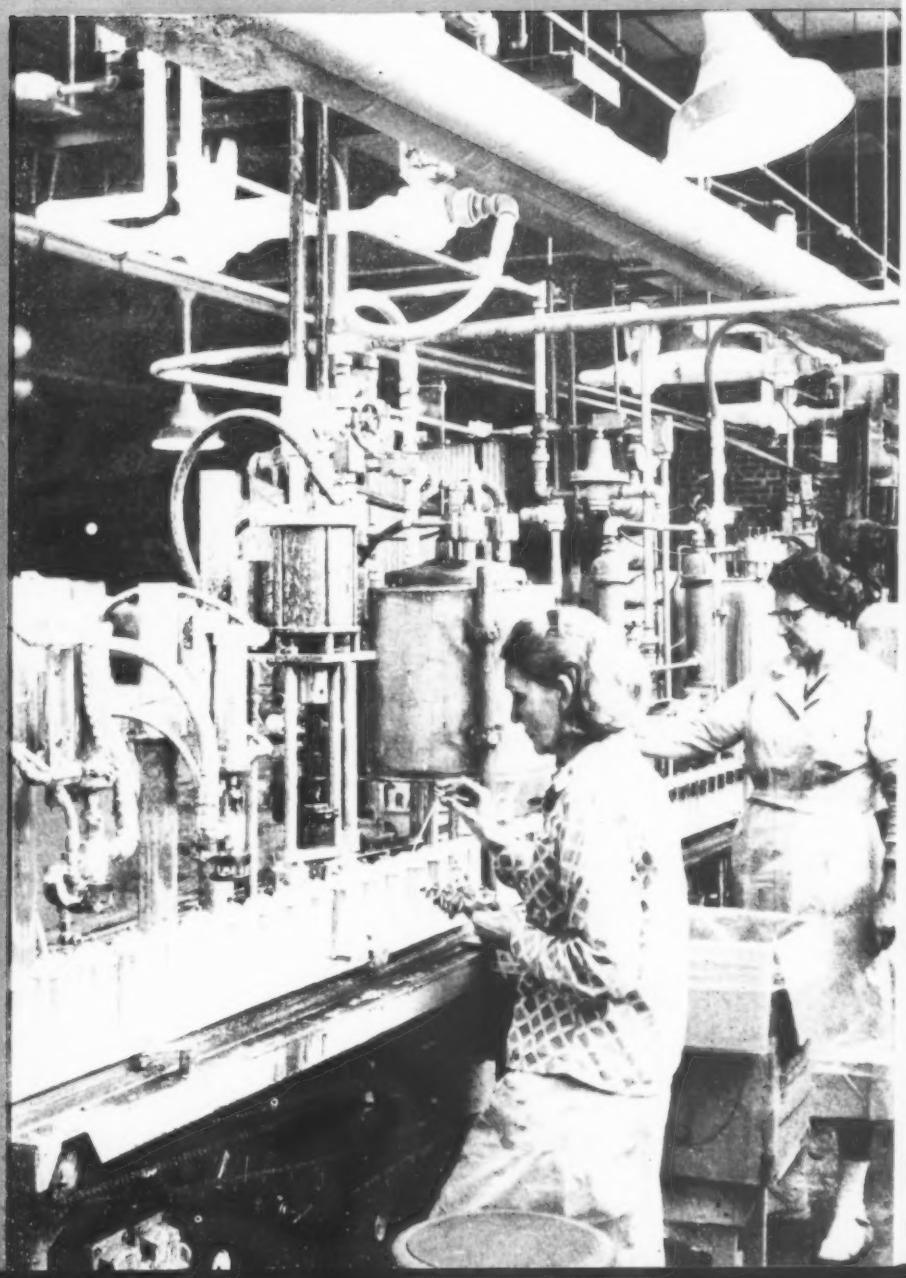
Chemical Specialties . . .

Aerosols
Automotive products
Bleaches
Bowl cleaners
Carpet cleaners
Cleaning fluids
Deodorants
Disinfectants
Floor waxes
and other floor products
Glass cleaners
Household ammonia
Insecticides
Mildew compounds
Moth specialties
Polishes
Repellents
Rodenticides
Sanitizers
Skin protectants
Stock sprays
Sweeping compounds
Wax strippers
Weed chemicals
and other
Chemical Specialties



Girls inserting valves in aerosol cans on filling line at new contract loading plant of Thomasson of Pennsylvania, Inc., Norristown, Pa. New plant was completed 13 months after fire and explosions destroyed former plant of two and one-half year old firm. See complete story on page 69.

Announcing . . .

ANNOUNCING the 45th annual meeting of the Chemical Specialties Manufacturers Association at the Commodore Hotel, New York, December 9-10, 1958.

An attendance of close to one thousand representatives of leading manufacturers of aerosols, insecticides, disinfectants, deodorants, floor waxes and other floor products, automotive chemicals, detergent and soap specialties and other chemical specialty products is anticipated.

Leaders of the chemical specialties industry, large and small, from all parts of the country will attend to discuss their common problems in open meeting.

If you want further information, communicate with

H. W. HAMILTON, *Secretary*

CHEMICAL SPECIALTIES MFRS. ASSOCIATION — FOUNDED CSMA 1914

Chemical Specialties Manufacturers Association, Inc.

50 East 41st Street James E. Ferris, *President* **New York 17, N. Y.**

Donald M. King, 1st Vice. Pres. *George W. Fiero, 2nd Vice. Pres.*

Peter C. Reilly, Treasurer *H. W. Hamilton, Secretary*

A. A. Mulliken, *Asst. Secretary*

SOLVAY makes a size

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PARA-DICHLOROBENZENE

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These four granulations of SOLVAY Para-dichlorobenzene, shown actual size, are...

- **Unsurpassed in quality... purity... color... appearance**
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Sample this outstanding para-dichlorobenzene!

Allied Chemical

SOLVAY PROCESS DIVISION
61 Broadway, New York 6, N. Y.

DM-11

Please send me, without cost, sample or samples of SOLVAY Para-dichlorobenzene in these granulations:

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Address_____

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Sodium Nitrite • Potassium Carbonate • Soda Ash
Caustic Soda • Calcium Chloride • Chloroform
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Ammonium Chloride • Vinyl Chloride • Methylene
Chloride • Para-dichlorobenzene • Methyl Chloride
Cleaning Compounds • Hydrogen Peroxide • Aluminum
Chloride • Ammonium Bicarbonate • Carbon Tetrachloride
Monochlorobenzene • Mutual Chromium Chemicals • Ortho-dichlorobenzene
Snowflake® Crystals

SOLVAY branch offices and dealers are located in major centers from coast to coast.

SELL WITH *Scent*

Effective odor treatment, whether modifying a basically unpleasant odor or adding a fresh clean note, will have a telling effect on the sale of any product . . . be it a DETERGENT, a PAINT, an INSECTICIDE, a FLOOR WAX, a FURNITURE POLISH, or any of the multitude of AEROSOL packaged items.

This fact has been proven time and time again in today's market.

Consider your product from the standpoint of its odor and call for advice upon the skill and experience of the perfume chemists of van Ameringen-Haebler, Inc.

VAN AMERINGEN-HAEBLER, INC.

521 WEST 57th STREET, NEW YORK 19, N. Y.

Formulate your floor waxes with Du Pont's anti-slip ingredient

LUDOX®

COLLOIDAL SILICA

When you formulate your quality floor waxes with Du Pont "Ludox" colloidal silica, you have two powerful sales advantages:

First, you can sell *skid resistance*. Tiny, transparent spheres of "Ludox" exert a snubbing action with every footstep . . . give sure-footed traction. That's especially important where traffic is fast and heavy.

Second, you have the *lasting beauty* customers associate with quality wax. Floors are easy to keep beautiful, because scratches and scuffs can be buffed out readily.

It adds up to a powerful sales story—*your* story when you formulate or distribute waxes containing "Ludox"—Du Pont's anti-slip ingredient. We'll gladly supply free promotional materials in the quantities you need. E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Room N-2533, Wilmington 98, Del.

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REG. U. S. PAT. OFF.

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. . . THROUGH CHEMISTRY

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DOUBLE-ACTION RUG AND UPHOLSTERY SHAMPOOS—A NEW USE FOR LUDOX®

New shampoos containing "Ludox" *clean and treat* rugs against resoiling in just one application. "Ludox" fills microscopic fiber crevices . . . protects surface so dust and dry dirt don't cling. Dirt stays on surface for easy removal.

FREE PROMOTION MATERIALS FOR YOUR CUSTOMERS

Send for samples of literature to help promote your wax containing "Ludox". We'll gladly supply copies for you to use in calls on your customers.

E. I. du Pont de Nemours & Co. (Inc.)
Grasselli Chemicals Department, N-2533SC
Wilmington 98, Delaware

Please send information about promotion aids for floor wax containing "Ludox".

Name_____ Title_____

Firm_____

Address_____

City_____ State_____

Tailor-made or roll-your-own

Aerosols

Some manufacturers of insecticidal and repellent aerosols use complete formulations, tailor-made to their specifications. Others like to roll-their-own from separate ingredients. Still others take a middle-of-the-road position and buy partial formulations.

As the use of insecticidal aerosols has grown, a large majority of these manufacturers have obtained their formulations or their toxicants from MGK. We like to believe that the fine quality of our allethrin and pyrethrum, the high efficiency of Super-Synergist 264, plus the MGK "know-how" is the reason for these purchases.

There Is No Substitute For Our Experience

A survey indicates we have had more insecticidal aerosol formulations registered than any other producer. The record shows that we have supplied completed formulations or toxicants for the majority of the many millions of insecticidal aerosols already filled. The experience and "know-how" gained in 56 years of business is available to your company. Write us about your insecticide aerosol problems.

McLAUGHLIN GORMLEY KING COMPANY
1715 S. E. Fifth Street, Minneapolis, Minnesota

● Please send information on aerosol ingredients, partial formulations and complete formulations.

*Name*_____

*Address*_____

*City*_____ *Zone*____ *State*_____

M **Mc LAUGHLIN**
G **ORMLEY**
K **ING** *Company*

1715 S. E. Fifth Street / Minneapolis, Minnesota

GUEST EDITORIAL

Welcome to Canada

By George E. Flemming,*

President,

Association of Canadian Chemical Specialties Manufacturers,
Montreal

ON behalf of the Association of Canadian Chemical Specialties Manufacturers, I would like to extend to all of those attending the first convention a friendly welcome. This is a milestone in the history of the development of chemical specialties on this continent. It is our sincere wish that Canadians who are engaged in the chemical specialties field will take an active interest in all activities of our organization. American companies affiliated with C.S.M.A. are cordially invited to join our association as non-Canadian members.

To the mind of the average consumer, chemicals are those products about which he reads in a detached sense. Food, clothing and shelter, the cornerstones of man's existence, are produced directly or indirectly with the aid of chemicals. These things are taken for granted. In the chemical specialties field lie chemicals with which the consumer is personally acquainted. They are used daily and really represent a direct contact with the chemical world.

The growth of chemical specialties manufacturing throughout the world can be classed as phenomenal. The research and development which have gone on to conceive such products as the aerosols, detergents, household insecticides, automotive preparations have benefited mankind and directly or indirectly sponsored a better way of life.

The chemical specialties industries in Canada have patterned their growth after that of their neighbor, the United States. Our tastes are similar and our needs are congeneric. The aims and objectives of the Association of Canadian Chemical Specialties Manufacturers are well known. They closely parallel those of the C.S.M.A. in the United States, whose cooperation and aid made possible the establishment of its northern counterpart.

Much has been written of the growth of Canadian nationalism in the past few years, and the frictions that have developed with our good neighbour to the South have been voiced in the newspapers of both countries. The founding of the Canadian association is an indication that the so-called areas of friction are minor and the publicity given to these irritations is a penalty we all pay for our democratic institutions.

It can be rightly said that Canada has now reached a milestone in this industry with the formation of its own association. Our group can become a powerful instrument in providing the consumer chemical requirements of a nation whose people are now becoming conscious of the role they play in the free world.

Our association dedicates itself to those objectives which promote the marketing and research on chemical specialties to the benefit of all people.

*Mr. Flemming is president of Natural Products Corp., Montreal 9, Quebec.

The first annual meeting of the Association of Canadian Manufacturers of Chemical Specialties is being held at the new and very beautiful Queen Elizabeth Hotel, Montreal, in the heart of one of Canada's most historical cities.

Canadian Specialties Meeting

Canadian Chemical Specialties Makers holding first annual meeting in Montreal, Wednesday, Thursday, Friday, Nov. 12-14.

THE first annual meeting of the Association of Canadian Manufacturers of Chemical Specialties, formed earlier this year, got under way Wednesday, Nov. 12th at the Queen Elizabeth Hotel, Montreal. The three-day meeting, originally scheduled for two days, runs through Friday, Nov. 14.

The association's formation as the Association of Canadian Chemical Specialties Manufacturers was announced formally late in March. The new name, Canadian Manufacturers of Chemical Specialties (C.M.C.S.), became effective Nov. 12. According to George E. Flemming, head of Natural Products Ltd., Montreal, and C.M.C.S. president, the organization prefers not to use the words "association of" in designating the group.

Last minute details for the program of the C.M.C.S. meeting were released Oct. 29 by Michel Chevalier, secretary-manager. The first day of the meeting, Wednesday, Nov. 12, is devoted largely to planning future activities. At a morning session C.M.C.S. directors met to outline plans for the ensuing year. Similarly, the six divisions of which the association is composed, were to meet the afternoon of Nov. 12 to discuss programs for the next 12 months. The six divisions are: Aerosols, Pesticides, Disinfectants & Sanitizers, Waxes and Floor Finishes, Soap & Detergents and Automotive. Meeting rooms of the divisions are posted at the registration desk. Registration starts the morning of the 12th in the convention floor foyer. A hospitality and information center is set up in the Salon Bersimis.

The annual membership meeting, set for 10:00 a.m., Nov. 12, in the Jolliet room, will feature the

nomination and election of officers and directors for the coming year. An outline of the association's proposed role and program for 1959 and future years will be presented by the president.

The luncheon speaker Nov. 12 will be The Hon. J. M. MacDonnell, Minister without Portfolio, Ottawa. The luncheon will be held in the Duluth-Mackenzie dining room.

Divisional Meetings

Four divisions meet in separate sessions beginning at 2:15 p.m., Nov. 13. The first two—Pesticides and Waxes & Floor Finishes—are concurrent, but are scheduled to conclude by 3:30 p.m., giving registrants an opportunity to attend either the Aerosols or Soaps & Detergent divisional meetings, which get under way at 3:45 p.m.

The highlight of the meeting of the Pesticides Division in the St. Charles room, for which A. H. Carter of Green Cross Products Co., Montreal, and a C.M.C.S. director is chairman, will be the discussion of a proposal for C.M.C.S. to collaborate with the Canadian Beautification Association in its spring "Beautification Campaign" conducted in 600 communities across Canada. As part of this topic, papers on community weed and pest control will be presented by M. A. Lablanc, Forestry Division, Botanical Gardens, Montreal, and J. F. Sharp, Entomology Division, Federal Dept. of Agriculture, Ottawa, respectively.

"Recent Trends in Aqueous Floor Polishes" and "Practical Considerations in Film Improvement of Plastic Floor Dressings" are the papers to be read at the Waxes & Floor Finishes meeting in the Matapedia room. G. V. Jansen, S. C. Johnson & Son, Ltd., Brantford, Ont., director, will preside. Lee Prince, Reichhold Chemicals, Inc., Elizabeth, N. J., will present the first paper, and I. Y. Straus, Dura Commodities Corp., New York, will discuss the second subject.

Two papers on aerosols and a film, "Miracles from the Earth," are scheduled for the meeting of the Aerosols Division in the St. Charles room. John A. Fisher, Dow Corning Silocones, Ltd., Toronto, will speak on "The Present and Future Role of Silicones in the Aerosol Industry." The final feature of the session will be a discussion of "Development of Metal Aerosol Containers—Past, Present and Future," by J. Demsey, Continental Can Co., Ltd., Montreal. Gordon S. Lang, Connecticut Chemicals (Canada) Ltd., Toronto, C.M.C.S. treasurer, presides.

The final session of the afternoon of Nov. 13 is that of the Soaps & Detergents group, which meets in the Matapedia room. R. L. Jones, Colgate-Palmolive Co., Ltd., Toronto, C.M.C.S. secretary, presides. Two papers are scheduled for this session: "Technical Trends in the Soaps and Detergents Industry," by Dr. R. B. Wearn, director of research, household products department, Colgate-Palmolive Co., Jersey City, N. J., and "Trends in Packaging for People," by Ernest Orr, president of Orr Associates, Toronto.

Concluding the day's programmed activities is the company open house period beginning at 6:00 p.m.

Five divisional meetings are slated for Friday, Nov. 14. Four divisions will meet in the morning, two each starting and 9:00 and 11:00 a.m. The Disinfectants & Sanitizers group, meeting in the Matapedia room, under the chairmanship of G. H. Wood, head of G. H. Wood & Co., Ltd., Toronto, and first vice-president of C.M.C.S., will hear two papers. Dr. E. G. Klarmann, vice-president and manager of technical service, Lehn & Fink Products Corp., New York, will discuss "Hospital Infection and Environmental Disinfection." This will be followed by a paper, "Hospital Sanitation in Canada," by Dr. D. H. Starkey, M.D., Adviser for Laboratory Services to the Director, General Treatment Services, Department of Veterans Affairs, Queen Mary Veterans Hospital, Montreal.

Meanwhile in the Chaudiere room the Soaps & Detergents Divi-

G. H. Wood
First vice-president

A. Robins
Second vice-president

R. L. Jones
Secretary

Gordon S. Lang
Treasurer

A. H. Carter
Director

Robert S. Sweet
Director

sion will meet, again under the chairmanship of R. L. Jones. Addressing this group will be Dean M. Prather, president of A. C. Nielsen Co. of Canada, Ltd., Toronto. Mr. Prather's talk is entitled, "Eight Notches in the Golden Key." Following Mr. Prather, R. P. Beadon, director of advertising, Procter & Gamble Co., Ltd., Toronto, will discuss "Modern Marketing in the Soaps and Detergent Industry."

The second session of the Pesticides Division gets under way at 11:00 a.m. in the Matapedia room with A. H. Carter presiding. Two papers are scheduled: "Trends

Program for First Annual Meeting Canadian

Wednesday, November 12th

Registration — Convention Floor Foyer
Hospitality and Information Center — Salon Bersimis

10:00 a.m.-12:30 p.m. — Joint meeting of directors to outline Association — Room 373-375 — Third Floor

2:30 p.m. — Division meetings to suggest programs for ensuing year —

(1) Aerosols
(2) Pesticides
(3) Disinfectants and Sanitizers
(4) Waxes and Floor Finishes
(5) Soap and Detergents
(6) Automotive

Notes: All members are invited to attend these Division meetings — see the Registration Desk for the location of the meeting

7:30 p.m.-10:00 p.m. — Hospitality Suite — Salon Bersimis

Thursday, November 13th

8:00 a.m. — Registration — Convention Floor Foyer
Hospitality and Information Center — Salon Bersimis

10:00 a.m. — Annual Meeting — Jolliet
Nomination and Election of Officers
President will outline the Association's proposed role and program for 1959 and future years.
Discussion

12:00 p.m. — Luncheon — Guest Speaker: The Hon. J. M. MacDonnell, Minister without Portfolio, Ottawa — Duluth-Mackenzie

2:15 p.m. — Forum on Pesticides, 1st Session — St. Charles
Chairman: A. H. Carter
Proposal for collaboration with Canadian Beautification Association in their spring Beautification Campaign conducted in 600 communities across Canada —

(1) General outline of C.B.A. — Bearce P. Campbell, Chairman, Can. Beautification Assn.
(2) Community Weed Control—M. A. Lablanc, Forestry Division, Botanical Gardens, Montreal, Que.
(3) Community Mosquito Control — J. F. Sharp, B. A., Entomological Division, Dept. of Agriculture, Ottawa, Ont.

3:30 p.m. — Adjournment

2:15 p.m. — Forum on Waxes & Floor Finishes, 1st Session— Matapedia
Chairman: G. V. Jansen
"Recent Trends in Aqueous Floor Polishes" — Lee Prince, Reichhold Chemicals Inc., Elizabeth, N. J.
The paper will deal with the current strong trend toward acrylic emulsions in floor finishes and the reasons therefor. The properties and performance of new alkali soluble synthetic resins for use in floor finishes will also be discussed.
"Practical Considerations in Film Improvement of Plastic Floor Dressings" — I. Y. Straus, Dura Commodities Corp., New York, N. Y.
The paper will trace the history of the development of plastic floor finishes and the part waxes and similar products are playing in their formulation. The film and film forming characteristics of various polymer, resin and wax components now available will also be discussed. A short color film and slides will be shown.

3:30 p.m. — Adjournment

3:45 p.m. — Forum on Aerosols, 1st Session — St. Charles
Chairman: G. S. Lang
"The Present and Future Role of Silicones in the Aerosol Industry" — John A. Fisher, Manager Consumer Sales, Dow Corning Silicones Ltd., Toronto.
Film "Miracles from the Earth", talk, discussion period.
"Development of Metal Aerosol Containers—Past, Present and Future" — J. Demsey, Continental Can Co. Ltd., Montreal, Que.

5:00 p.m. — Adjournment

3:45 p.m. — Forum on Soaps & Detergents, 1st Session — Matapedia
Chairman: R. L. Jones
"Technical Trends in the Soaps and Detergents Industry" —Dr. R. B. Wearn, Director of Research-Household Products, Colgate-Palmolive Co., Jersey City, N. J.
"Trends in Packaging for People"—Ernest Orr, President, Orr Associates Ltd., Toronto

5:00 p.m. — Adjournment

6:00 p.m. — Company Open House

Dr. G. V. Jensen
Director

in Legislation," by C. H. Jefferson, Plant Products Division, Federal Dept. of Agriculture, Ottawa, and "Household Insecticides—A Scientific View," by Stirling MacLeod, Federal Dept. of Agriculture.

A concurrent session of the Waxes & Floor Finishes Division, held in the Chaudiere room, will be presided over by G. V. Jansen. At this second session of the Waxes & Floor Finishes Division, Charles T. O'Connor, Shanco Plastics & Chemicals, Inc., Tonawanda, N. Y., will discuss "Development, Production and Synthesis of Fischer-Tropsch Waxes." At the same session, a paper, "The Design of Polymer Emulsion Coatings," by Lloyd H. Perry, Roland M. Avery, Jr., and Richard H. Cahill, of U.B.S. Chemical Corp., Cambridge, Mass., will be read.

The group luncheon on Friday Nov. 14, in the Duluth-Mackenzie room, will be addressed by R. K. Watson, chairman of the Canadian Freight Association, on "Making Freight Rates."

The remainder of Friday afternoon will be devoted to a meeting of the Aerosols Division in the Matapedia room. At this session, which begins at 2:15 p.m., Grant L. Armstrong, a technical representative of the Chemicals Department of Du Pont Company of Canada (1956), Ltd., Montreal will speak on "Formulation of Aerosol Products." A history of the development of the aerosol valve will be discussed by Joseph C. Pizzurro, technical director of Precision Valve Corp., Yonkers, N. Y. Mr. Pizzurro's paper bears the title: "Valves for Pressurized Products."

The concluding feature of the discussion portion of the meeting will be "A Successful Sales Campaign – Case History." presented by G. H. Wood, president

(*Turn to Page* 167)

Manufacturers of Chemical Specialties, Nov. 12-14

Friday, November 14th

Hospitality and Information Center — Salon Bersimis

8:30 a.m.—Forum on Disinfectants and Sanitizers—Matapedia
Chairman: G. H. Wood
"Hospital Infection & Environmental Disinfection"—Dr. E. G. Klarmann, Vice President & Manager of Technical Services, Lehn & Fink Products Corp., New York, N. Y.
"Hospital Sanitation in Canada" — Dr. D. H. Starkey, M.D., Adviser for Laboratory Services to the Director General Treatment Services, Dept. of Veterans Affairs, Queen Mary Veterans Hospital, Montreal.

10:45 a.m. — Adjournment

9:30 a.m. — Forum on Soaps & Detergents, 2nd Session — Chaudiere
Chairman: R. L. Jones
"Eight Notches in the Golden Key" — Dean M. Prather, President, A. C. Nielsen Co. of Canada Ltd., Toronto.
"Modern Marketing in the Soaps & Detergents Industry" —R. P. Beadon, Director of Advertising, The Procter & Gamble Co. Ltd., Toronto.

10:45 a.m. — Adjournment

11:00 a.m. — Forum on Pesticides, 2nd Session — Matapedia
Chairman: A. H. Carter
"Trends in Legislation" — C. H. Jefferson, Plant Products Division, Federal Dept. of Agriculture, Ottawa.
"Household Insecticides — a scientific view" — Stirling MacLeod, Federal Dept. of Agriculture, Ottawa.

12:15 p.m. — Adjournment

11:00 a.m. — Forum on Waxes & Floor Finishes, 2nd Session— Chaudiere
Chairman: G. V. Jansen
"Development, Production and Synthesis of Fischer-Tropsch Waxes" — Chas. T. O'Connor, Shanco Plastics & Chemicals Inc., Tonawanda, N. Y.
"The Design of Polymer Emulsion Coatings" — Lloyd H. Perry, Roland M. Avery, Jr. and Richard H. Cahill, U B S Chemical Corporation, Cambridge, Mass.

12:15 p.m. — Adjournment

12:30 p.m. — Luncheon — Address: "Making Freight Rates"— R. K. Watson, Chairman, Canadian Freight Association— Duluth-Mackenzie.

2:15 p.m. — Forum on Aerosols, 2nd Session — Matapedia
Chairman: G. S. Lang
"The Formulation of Aerosol Products" — Grant L. Armstrong, Technical Representative, Chemicals Dept., Du Pont Company of Canada (1956) Limited, Montreal.
"Valves for Pressurized Products" — Joseph C. Pizzurro, Technical Director, Precision Valve Corp., Yonkers, N. Y.

3:30 p.m. — Adjournment

3:45 p.m. — "A Successful Sales Campaign—Case History"— Duluth — G. H. Wood, President & General Manager, G. H. Wood & Co. Ltd., Toronto.
Film: "The Golden Hours"

5:00 p.m. — Adjournment

6:00 p.m. — Cocktail party — St. Maurice

7:00 p.m. — Banquet — Guest Speaker: Mr. Jean Gillet, Vice President, Montreal Citizens' Committee — Duluth-Mackenzie
Floor Show
(Dress — informal)

LADIES PROGRAM

Thursday, November 13th

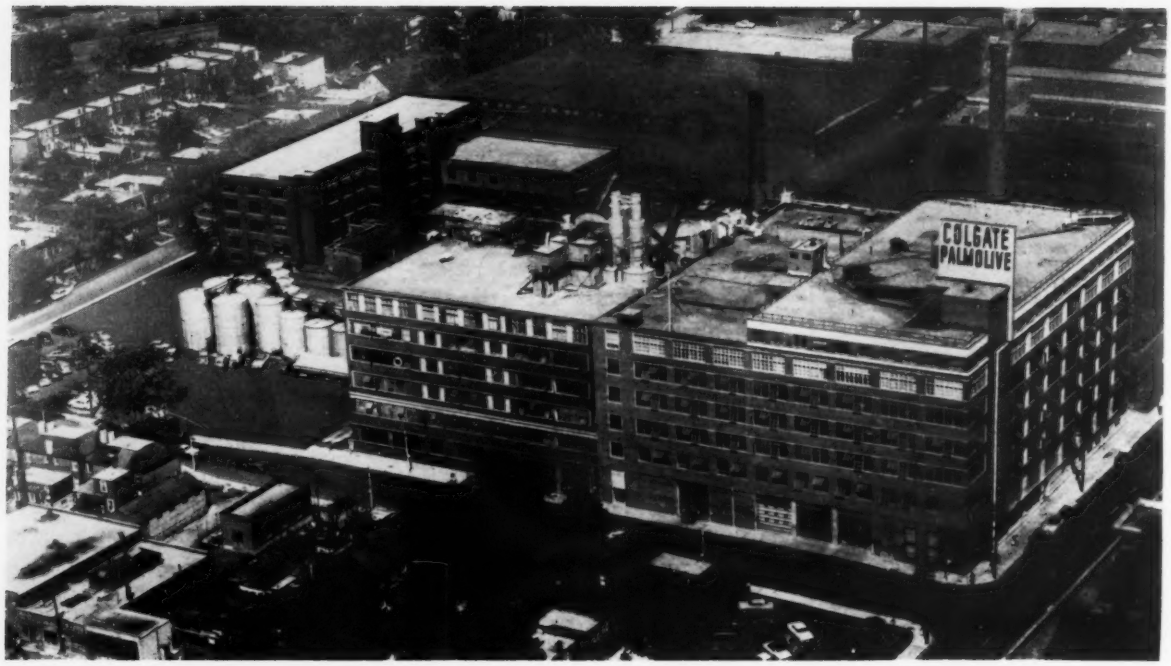
10:30 a.m. — Sightseeing tour of Montreal (leave from Mansfield St. entrance of hotel)
Luncheon at St. Helen's Island

Friday, November 14th

10:00 a.m. — Tour of The Queen Elizabeth (meet at Registration Desk)

6:00 p.m. — Cocktail party — St. Maurice

7:00 p.m. — Banquet, Floor Show — Duluth-Mackenzie
(Dress — informal)



Although American firms such as Colgate-Palmolive Co., New York, and others have helped to contribute to growth of chemical specialties industry in Canada, as exemplified by Colgate-Palmolive plant in Toronto, above, Canadian companies have done their part, too. Five fold growth of chemical specialties industry is expected by 1980.

The Chemical Specialties Industry of Canada

IN these days when our minds are so tormented and obsessed with fears of war, of inflation, and recession, it is refreshing and encouraging to turn our attention to what is happening in the business world in more peaceful pursuits—pursuits that have for their purpose the welfare of man and not his destruction; pursuits that will bring release from drudgeries and miseries of the past; pursuits that will contribute immeasurably to the comfort and protection of the individual within the home and outside it, yielding products undreamed of not so many years ago.

This is especially true in what is happening in the phenomenal growth of the chemical specialties industry in Canada.

Chemical specialties may be broadly defined as those chemical products, allied to the general chemical fields which are sold through wholesale and retail outlets directly to the ultimate consumer, as opposed to basic chemicals, which are used primarily by the chemical industry itself and by other industries. "Consumer and allied chemicals" and "secondary chemicals" are other terms often applied to the chemical specialties group. Typical product classifications are aerosols, automotive chemicals, disinfecting and sanitizing chemicals, insecticides, soaps, detergents and sanitary chemicals, waxes and floor finishes, medicinals and pharmaceuticals, paints, varnishes and lacquers and toilet preparations. The present diversity of these products is a reflection of the growth and expansion of the Canadian chemical industry from its early beginning, when the burning and leaching of wood to make potash was one of the principal industries of the country a century ago.

Chemical development closely paralleled and, in many ways, was forced by the circumstances surrounding the "opening up" of the country, as is so often the case in a young country. Demand for what are commonly termed inorganic chemicals, made from natural resources such as mineral pyrites, limestone and salt, arose out of the railway construction program and development in the mining industry. The advent of World War I cut off foreign sources of supply of many products, as well as markets for basic chemicals, so the Canadian chem-

ical industry began to expand in a different direction – developing internal markets for its basic chemicals and initiating the production of a variety of chemicals which had heretofore been of minor interest. The postwar period saw further impetus being given to expansion due to increasing demands for process chemicals by other industries, while at the same time a growing tendency was evident among chemical firms to make consumer goods which could be sold direct at the retail level.

Sufficient maturity in the chemical field had been reached by 1939 so that, following the outbreak of hostilities, the industry was able to undertake great expansion in a very limited time to meet wartime demands. This high level of production has since been maintained, with continued support by both domestic and foreign markets for the products of our chemical industry.

Rapid Expansion

Although chemical specialties in one form or another have been available to the consumer for many decades, the interwar period saw a rapid increase in the expansion of this portion of the chemical industry. Not only were new retail products being made available to the consumer market, but manufacturing and packaging machinery developments made production in volume less expensive. The inter-relation of products and their packaging machinery has continued to stimulate the chemical specialties field towards developing new marketing ideas and consumer acceptance of the products themselves. Production of synthetic textiles which could be used for packaging chemical specialties benefited both the primary and secondary chemical field, and the technical developments during the World War II period have made possible a great variety of applications in the chemical specialty field, both in product formulations and packaging. Improved methods and more specialized products, coupled with consumer education and an expanding economy, see us now at the point where chemical specialties are no longer luxuries for the fortunate, but essential for the masses.

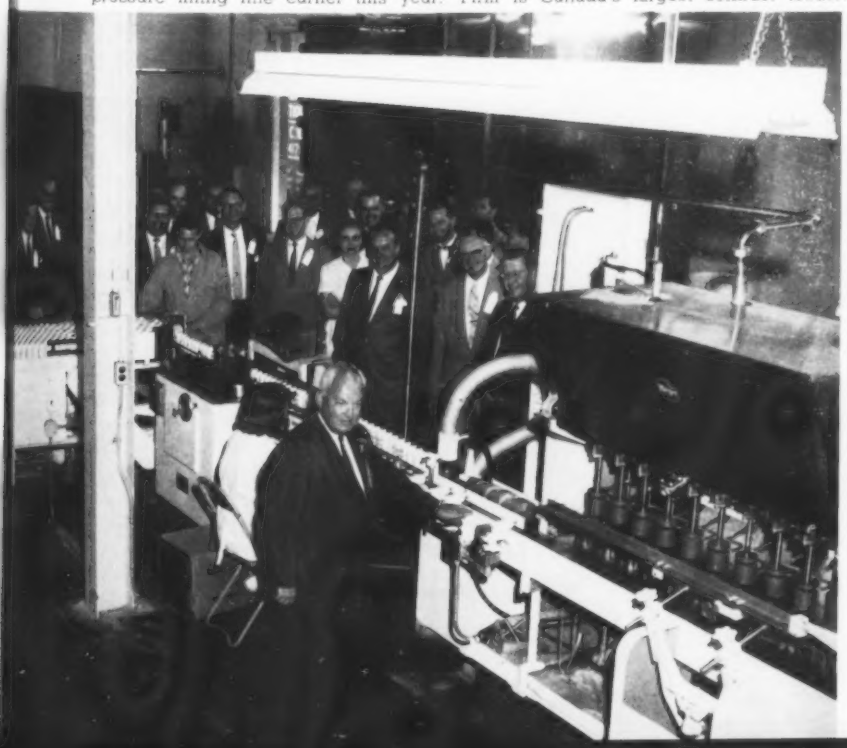
Head office and factory of G. H. Wood & Co., Ltd., on Queen Elizabeth Way in Toronto. Wood is large manufacturer and distributor of chemical specialties.

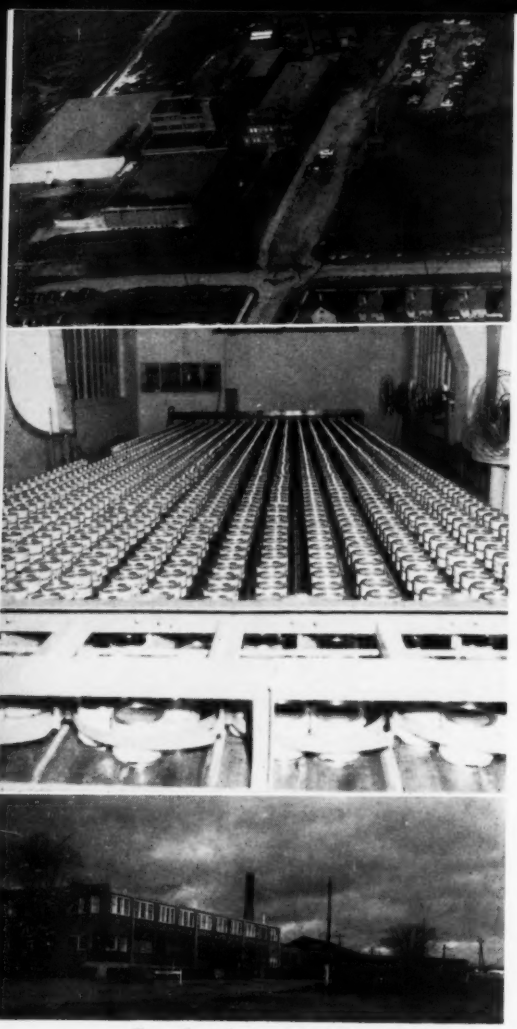
Future Outlook

What of the future? In his book, "The Canadian Chemical Industry," which is based on the findings of the Royal Commission on Canada's Economic Prospects, John Davis shows that the annual selling value of chemical specialty products in 1955 was $462 million, or about two-fifths of the total value of chemical production in Canada. About 40 per cent of the labor force of the entire chemical industry was employed in the chemical specialty field. The average factory is much smaller in size than those of the primary chemical group, and can be located more readily in close proximity to the principal markets for each product. As population increases and new urban areas are created, it is likely that additional factories for consumer products in such areas will eventually be built, provided of course that it is more economical to do so than to expand existing plant facilities.

The Canadian chemical industry is expanding, but within the component groups of the industry, rates of growth are varying. Between 1929 and 1935 consumer chemicals growth was more rapid than that of primary chemicals. Since 1940, though, industrial chemicals have taken the lead, due largely to the influences occasioned by World War II, as previously mentioned. Many of the raw ma-

Press guests and firm's staff watch as Carl D. Durant, president of Aerocide Dispensers, Ltd., Weston, Ont., Canada, presses button to inaugurate start of aerosol pressure filling line earlier this year. Firm is Canada's largest contract loader.



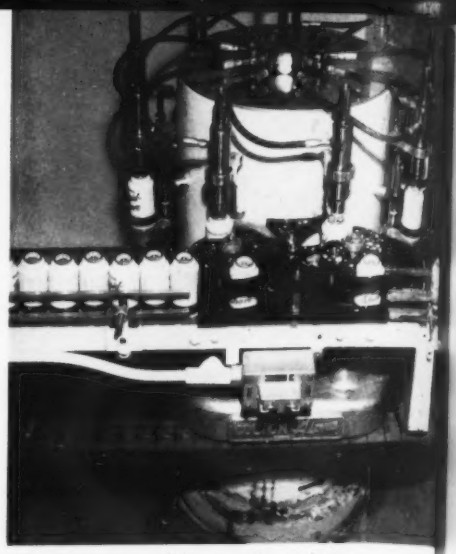


Top: Aerial view of plant of S. C. Johnson & Son, Ltd., Brantford, Ont., Canada. Center view is of paste wax multiple conveyor cooling belt in Johnson's Canadian plant. Bottom view shows office building at the Johnson Brantford plant.

terials imported for use in the chemical specialties field have, until now, been products which could not economically be produced in Canada. In recent years, however, extended developments of our vast potential of raw materials, along with a larger internal market, has seen a reduction in imports of consumer chemicals with a corresponding increase in our domestic production. This change in the source of our raw materials, of course, does not mean an increase in chemical specialty volume, and it is expected that the rate of growth of the chemical industry, and particularly the primary chemical group, will be greater in the next 25 years than will chemical specialties. Market and trend studies indicate that total chemical production, including specialties, for 1980 will amount to between $5 and $6 billion, roughly a five-fold increase over 1955's total of $1.2 billion. Chemical specialties' growth depends on population increases, improved standards of living, and an expanding economy. Research into methods by which standards of living may be improved, together with developing processes and products to reflect these changes, will influence to a great degree the future expansion of chemical specialties in Canada.

Need for Association

In view of this enormous growth in the chemical specialties industry in Canada and the much greater potential, it is only natural that some of the larger producers should have realized the need for a trade association embracing the manufacturers of chemical specialties in Canada, similar to that which has existed in the United States for many years.



Alpha pressure filler in plant of Aerocide Dispensers, Ltd., Weston, Ont. Unit can pressure fill both halogenated hydrocarbons and liquified petroleum gases.

Hence it was that in the early part of 1958, under the chairmanship of George E. Flemming, president of Natural Products Corp., Ltd., Montreal, an organizing committee consisting of:

Ralph Howard—Howard Chemical, Ltd.,

G. V. Jansen—S. C. Johnson & Son, Ltd.,

R. L. Jones—Colgate-Palmolive, Ltd.,

G. S. Lang—Connecticut Chemicals (Canada), Ltd.,

(*Turn to Page* 95)

Part of controller for automatic testing of pressurized nitrogen filled containers in Aerocide plant. Box-like units at left are aerosol pressure testers of Robins Engineering Co., North Haven, Conn. Aerocide cold filling line is in photo at right.

Chemical news primes the profit pump

Anyone who has ever done duty on the business end of a pump handle can tell you that often the difference between just getting exercise and getting water is a cupful of priming water to wet the leathers and start things flowing. Drawing a full flow of profit from today's well of competitive business takes the same priming. New chemicals . . . new processes . . . new techniques . . . provide the prime. Any one of these news capsules may be just the "cupful" you need to start profits flowing.

You may wish to check certain items in this advertisement and forward to those concerned in your company.

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ALL-PURPOSE EMULSIFIERS MAKE FORMULA CHANGES EASY

Ethanolamine ends needle-in-the-haystack hunt for the right emulsifier when formulas change. By simply varying any of the several components: the ethanolamine-fatty acid ratio, the mixing techniques, the concentration of amine soap, or the fatty acid used — a wide range of emulsifying characteristics can be obtained to meet changing formula requirements.

Changing formulas can be a real ordeal, because the advantage gained in switching ingredients can be lost in looking for the right emulsifier. By using ethanolamines, emulsifiers can be the least of your worries.

More and more, manufacturers with emulsion problems are giving up their specialty emulsifiers with the "prima donna" complex for versatile, switch-hitting ethanolamines that can slug it out for extra profit . . . no matter what formula curve is thrown.

"Hunting for the emulsifier with the right emulsion viscosity was always like looking for a needle in a haystack," a chemist reports. "We find now, by just altering the ethanolamine-fatty acid ratio, we hit the viscosity we want right on the nose every time."

The mixture of ethanolamines with fatty acids produces emulsifiers with a broad range of emulsifying characteristics. The soaps produced by the combination are practically neutral—with a pH of approximately 8—and are soluble in both water and organic solvents. Because of their neutral nature, these emulsions are noncorrosive.

Dow's three ethanolamines ("mono", "di" and "tri") are helping improve the products and profit position of many manufacturers of polishes, detergents, cleaners, cosmetics and other specialty chemical products.

In certain formulations ethanolamine soaps will effect inventory and production economies. You only need one product to do the job it formerly took two or three to accomplish.

Products that fall within the wide emulsification range of ethanolamines can *profit* from them. Complete information on these versatile emulsifiers will soon be available from Dow.

CHELATING AGENTS:
More and more for less and less

The days are long gone when chemists experimented on metal ion control with test tube quantities of hard-to-come-by chelating agents. Now, whenever and wherever a metal ion problem rears its head, there's an ample supply of chelating agents to solve it in short order . . . *and at low cost!*

The ability of chelating agents to inactivate trace metals in solution has

Ethanolamines combine with fatty acids to yield unusual soaps that stabilize oil-in-water emulsions, soluble cutting oil formulations and detergent solutions.

made possible the production of soaps that won't cloud or clog dispensers and that will withstand hard water on an even footing with syndets.

"We used chelating agents in spite of their price at first because we had to keep our liquid soaps clear," one soap maker reports. "Now we're able to get top quality soaps and favorable economies as well."

One reason for the dramatic reduction in the cost of chelating agents is Dow's big new Texas plant. Increased production facilities such as these have not only made Dow a leading producer but have served to bring about progressive price reductions in recent years, opening up many new applications for these remarkable "ion tamers".

Dow chelating agents (manufactured under the trademarks: Versene®, Versenol® and Versenex*) are available to solve a wide variety of metal ion problems in processing and products.

The Secretary's Report

By Michel Chevalier

Secretary-Manager

Canadian Manufacturers of Chemical Specialties

MEMBERSHIP expansion has been the prime activity of the newly-formed Association of Canadian Chemical Specialties Manufacturers, holding its first annual convention on November 12, 13 and 14 in Montreal.

From an initial steering group of 10 interested companies, the Canadian counterpart of C.S.M.A. has grown in eight months to a total membership of 61 companies—30 active, 24 associate, seven non-Canadian.

This membership now covers a substantial part of chemical specialty manufacturing in Canada and many of the suppliers of raw materials and closely interested companies in the United States.

Six divisions have been formed as follows:

Aerosol (Chairman: G. S. Lang, Connecticut Chemicals (Canada) Ltd., Toronto)

Automotive (Chairman: H. C. Kerman, Commercial Alcohols, Ltd., Montreal)

Disinfectants & Sanitizers (Chairman: G. H. Wood, G. H. Wood & Company, Ltd., Toronto)

Pesticides (Chairman: A. H. Carter, Green Cross Products, Montreal)

Soaps & Detergents (Chairman: R. L. Jones, Colgate-Palmolive Ltd., Toronto)

Waxes & Floor Finishes (Chairman: G. V. Jansen, S. C. Johnson & Son Ltd., Brantford)

Under a special agreement with the C.S.M.A., New York, members of C.C.S.M. receive certain services common to members of the American association. These services have been a great asset to the growing Canadian group because it would take many years and much financial investment to duplicate these excellent technical and management aids. The Canadian association will complement and adapt services in the light of different conditions obtaining in this country.

In addition to the organizational features of C.C.S.M's present program, such as constitution, charter, by-laws, newsletters and membership promotion, one item of specific interest to Canadian companies, the matter of Federal tariff revisions, is being studied by a committee under the joint chairmanship of A. Robins, Cartier Chemical Company, Ltd., and R. L. Jones, Colgate-Palmolive, Ltd.

Many of the leading members of C.C.S.M. have devoted time and effort to the planning and realization of a successful first convention at The Queen Elizabeth Hotel, Montreal, November 12th, 13th and 14th. The program contains presentations and discussions of trends in the industry against a background of convivial social events in the "Paris of North America." It is hoped that a good many of our American friends are participating in the proceedings of this first Canadian meeting. Registration forms and full information are available from the national office of C.C.S.M. which has been established at 1005 Sherbrooke St. West, Montreal 2, Quebec.

Provisional Officers and Directors

G. E. Flemming	President:	Guardian Chemical & Equipment Co. Ltd., Montreal, Que.
G. H. Wood	1st vice-president:	G. H. Wood & Company Ltd., Toronto, Ontario.
A. Robins	2nd vice-president:	Cartier Chemical Company Ltd., Lachine, Que.
R. L. Jones	Secretary:	Colgate-Palmolive Limited, Toronto, Ontario.
G. S. Lang	Treasurer:	Connecticut Chemicals (Canada) Toronto, Ontario.

Directors:

A. H. Carter—Green Cross Products, Montreal, Que.	H. C. Kerman—Commercial Alcohols Ltd., Montreal, Que.
R. T. Howard—A. H. Howard Chemical Co. Ltd., Orangeville, Ontario.	R. S. Sweet—Success Wax Limited, Quebec, Que.
G. V. Jansen—S. C. Johnson & Son Ltd., Brantford, Ontario.	A. L. Taylor—R. M. Hollingshead Co. of Canada Ltd., Toronto, Ontario.

Combination (either "cold" or pressure fill) aerosols loading line at new Thomasson of Pa., Norristown, plant operates under the watchful eye of John J. McAnally, chief engineer. New plant has about 65,000 square feet of floor space.

The Thomasson Story

Large-scale, modern contract aerosol loading plant now operates 13 months after fire and explosions destroyed plant of 2½-year-old firm.

JUST 13 months after fire and explosions destroyed the plant of Thomasson of Pa., Inc., Norristown, Pa., the company formally announced the opening of a new, large-scale aerosol custom loading plant.

On the night of August 8, 1957, at the Thomasson plant in Norristown, employees on the second shift were busy filling orders. Suddenly, one of the women working on the production line noticed tongues of flame licking the edge of the ceiling. Jumping from her place, she screamed, "there's a fire!" Within minutes, foremen evacuated the building. It was just in time.

As the last employees

Long view of new one-story Thomasson plant. Portion of multi-drum storage area appears in lower right. Manufacturing section of plant is in near left hand corner.

ETHANOLAMINES

for soap, detergents and chemical specialties

Allied's Mono-, Di-, and Triethanolamines are manufactured by an improved process which assures their high quality and purity for use in:

SOAPS AND DETERGENTS The Ethanolamines are important ingredients in many soaps and detergents for household and industrial use. They form excellent suds boosters which function in cold hard water to produce foam of improved stability.

FATS, OILS AND WAXES The Ethanolamines are excellent components of emulsified fatty acid preparations. They react producing soaps which are practically neutral, having a pH in the range of 8, and which are soluble in both water and hydrocarbons. Highly stable oil-in-water emulsions such as boring oils and cutting oils can be prepared which are characterized by small particle size, ease of preparation, and non-corrosiveness.

COSMETICS AND TOILETRIES Triethanolamine Stearate is used in many cosmetic preparations. Its freedom from irritating skin effects makes it especially advantageous. Triethanolamine and Monoethanolamine fatty acid esters are used as dispersing agents in the formulation of shaving creams, hair tonics, shampoos and other preparations of this nature.

POLISHES Monoethanolamine and Triethanolamine are used as the emulsifying agents in the preparation of all types of wax polishes for automobiles, furniture, floors, shoes and metals . . . as well as in various DISINFECTANT, TEXTILE SCOURING, INSECTICIDE, HERBICIDE AND DRY CLEANING formulations.

(SEE SPECIFICATIONS CHART ATTACHED) For further technical data, and for information on price and delivery, write us at address listed below.

SHIPPING STANDARDS — ALLIED TECHNICAL ETHANOLAMINES

	monoethanolamine	*diethanolamine*	*triethanolamine* Commercial Grade	*triethanolamine* 98% Grade
Specific Gravity 20/20°C	1.017–1.021	1.090–1.095*	1.1220–1.1300	1.1240–1.1290
Boiling Range — ASTM	I.B.P. 165°C min. D.P. 175°C max.	— —	— —	— —
Color — APHA	20 max.	40 max.	100 max.	100 max.
Suspended Matter	Substantially Free	Substantially Free	Substantially Free	Substantially Free
Equivalent Weight	61–63	104–106	140–145	147–152
Odor	Mildly ammoniacal	—	Mildly ammoniacal	Mildly ammoniacal
Water	—	0.15 wt. % max.	0.5 wt. % max.	0.5 wt. % max.
MEA Content	—	1.0 wt. % max.	1.5 wt. % max.	—
DEA Content	—	98.50 wt. % min.	15 wt. % max.	—
TEA Content	—	1.0 wt. % max.	85 wt. % min.	98.0 wt. % min.
Iron	—	—	—	0.003 wt. % max.
		*30/20°C		

Allied Chemical

Ethanolamines • Ethylene Oxide • Ethylene Glycols • Urea • Formaldehyde • U. F. Concentrate—85 • Anhydrous Ammonia • Ammonia Liquor • Ammonium Sulfate • Sodium Nitrate • Methanol • Nitrogen Solutions • Nitrogen Tetroxide • Fertilizers & Feed Supplements

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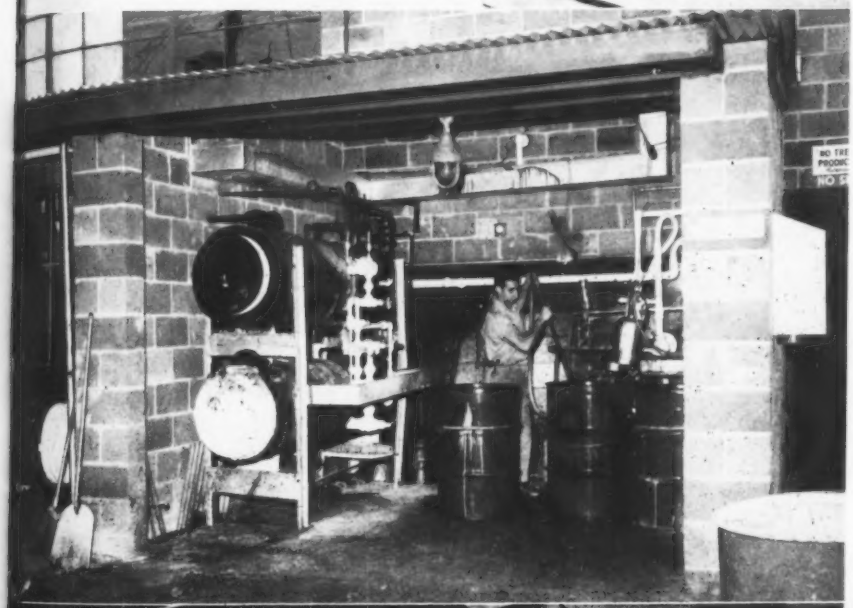


Top: Large refrigerating equipment at new Thomasson plant is required for "cold" filling and forced air ventilation. Center: Close-up of product intake shed. Here formulations are agitated constantly to achieve proper consistency. They are then pumped to filling equipment. Chilling tanks are shown against left wall and portion of refrigeration plant is at extreme left. Bottom view shows mixing operation. This is in a separate building where bulk materials are gathered and blended for product formulations. From here formulations are pumped to intake shed.

reached safety, the first of a series of explosions ripped through the area where they had been working. Everything in the plant—machinery, supplies, finished products, orders, invoices—was destroyed. The only fortunate note: because of the employee's early warning and prompt action by foremen, the sole casualty was a volunteer fireman who scraped his knee getting on his truck, some 30 miles away.

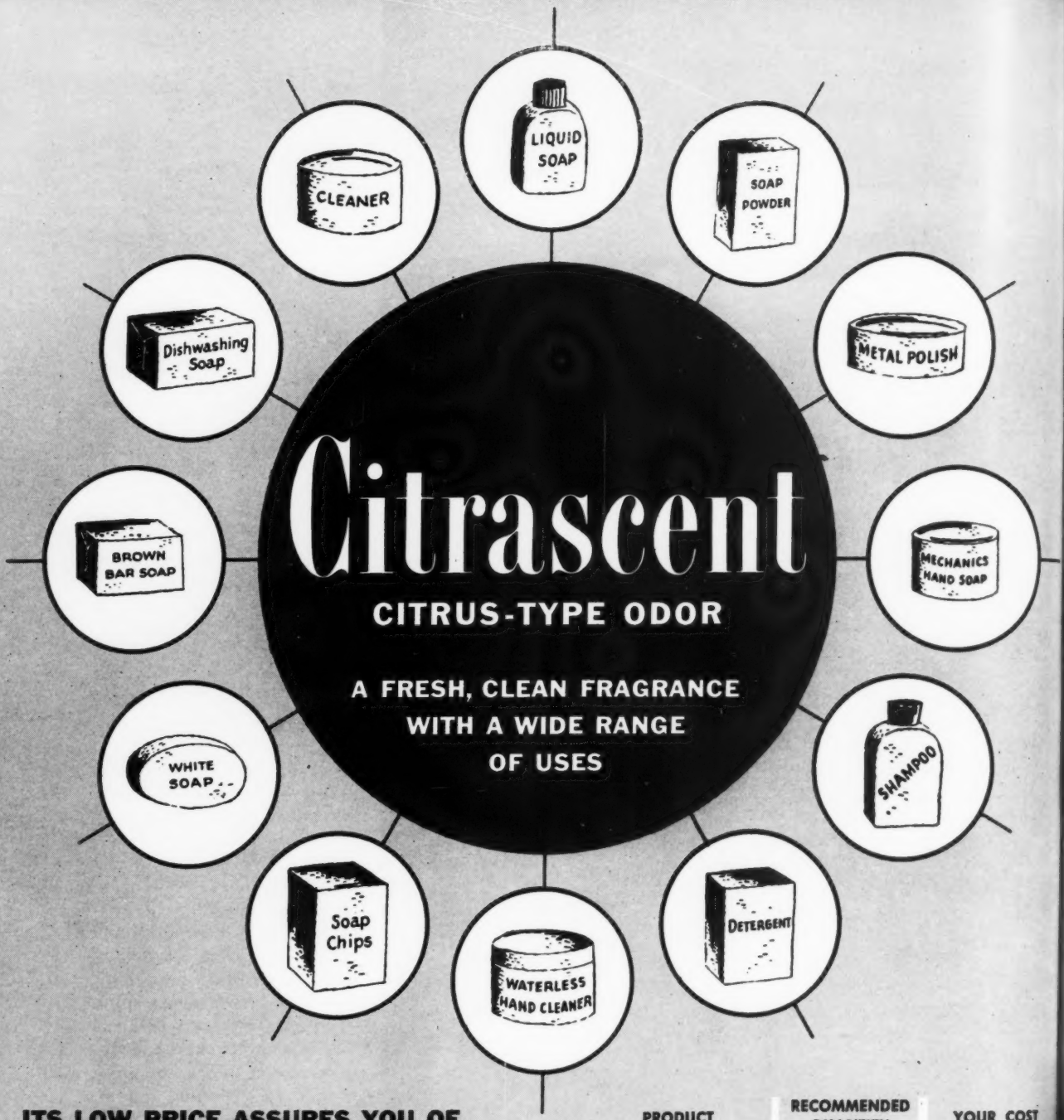
For a young firm—Thomasson was founded in April, 1955—sure a fire might well have been the end of the line. At the very least, it could have been a crippling blow that would leave the firm teetering on the edges of failure for quite a while.

But it didn't.

It didn't, in part, because of the combination of loyalty of customers, cooperation of suppliers and competitors, and immediate acceptance of claims by insurance companies. But it was also due to the management ability of the men who had built up Thomasson into a custom aerosol packaging operation that had to run two shifts a day, six days a week to keep up with orders. Even before the fire was out, they were planning how to get back on their feet.

Thomasson got its start three years ago when James W. Bampton, president of the company, surveyed the Greater Philadelphia area. He realized that there was no aerosol loading plant in Delaware Valley, that there was a large number of firms marketing products dispensed in sprays, and a big potential market unfolding.

It was into this rapidly-



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This fine reodorant saves you money and gives your products a popular, distinctive fragrance that has definite *sales appeal!*

CITRASCENT has a truly lasting fragrance—with more "lift"... it is uniform and stable in odor value and provides complete freedom from discoloration in soaps.

Notice how amazingly little it costs to reodorize your products with CITRASCENT.

PRODUCT	RECOMMENDED QUANTITY	YOUR COST
Liquid Soaps Liquid Detergents Insecticide Sprays Shampoos	¼ oz. to 1 gallon	3⅓¢ gallon
Cake Soap Powdered Soap Powdered Detergents Waterless Hand Cleaners General Purpose Cleaners	4 oz. to 100 lbs.	½¢ pound

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ripening field that Jim Bampton and his associates moved with a complete custom-loading plant. "We had in mind an operation where a prospect could come and say, 'I think this product might be good in aerosols,' and we could analyze it, develop it, make up a propellant formula in our laboratory, pack it on our production lines, design labels and packages and just about write his advertising."

And, that's just what Thomasson has developed. Its research laboratories, staffed by men who know pressure packaging, can do everything from devising formulas for new products to adapting existing products to spray usage.

As a custom loader Thomasson also offers clients an elastic loading schedule: If a responsible prospect wants to package 10 or 20 cans for pilot tests, Thomasson will take on the job: if he wants several hundred thousand, Thomasson is equally ready to do the job.

In 1955, Thomasson engineers checked more than 50 plant locations, chose Norristown, just outside of Philadelphia. With excellent trucking facilities, close to the Pennsylvania Turnpike, Thomasson is served by the Reading and Pennsylvania railroads, and is only a few miles from the Port of Philadelphia.

Propellant mixing and storage area. Two 7,000 gallon propellant storage tanks are shown at right. At left are two weigh-in and pre-mix pressure vessels. Shed in center protects scales and measuring equipment.

In April, 1955, the firm started with 14 employees and only one large customer ("Krylon", an area-based national marketer of spray coatings that previously had its aerosol packaging done out of the area). By the end of the first year, Thomasson added three more large accounts, some 15 smaller clients, and came up with a tidy profit.

In 1956, the firm was operating two shifts a day, six days a week, had 120 employees, was growing faster than the products it was packaging. 1957 started out on the same note of expansion—the firm had completed plans for a West Coast plant. David R. Bagenstose joined the firm as vice-president and general manager.

Then the fire broke out, and the rainbow went up in smoke. Ten million labels, hundreds of thousands of cans, valves and cartons were completely destroyed; the plant was a total loss. Fortunately, duplicate records of formulas were kept elsewhere.

The Thomasson management group, pulled from their homes by the fire, watched the blaze until midnight, then went to the executive offices in the center of Norristown and began to plan the firm's recovery.

At 3 a.m., the Washington,

General view of one manufacturing area showing one complete aerosol loading line. Filling units are on far side of room. Hot water bath is in right upper rear and capping and cartoning are shown at right and in foreground.

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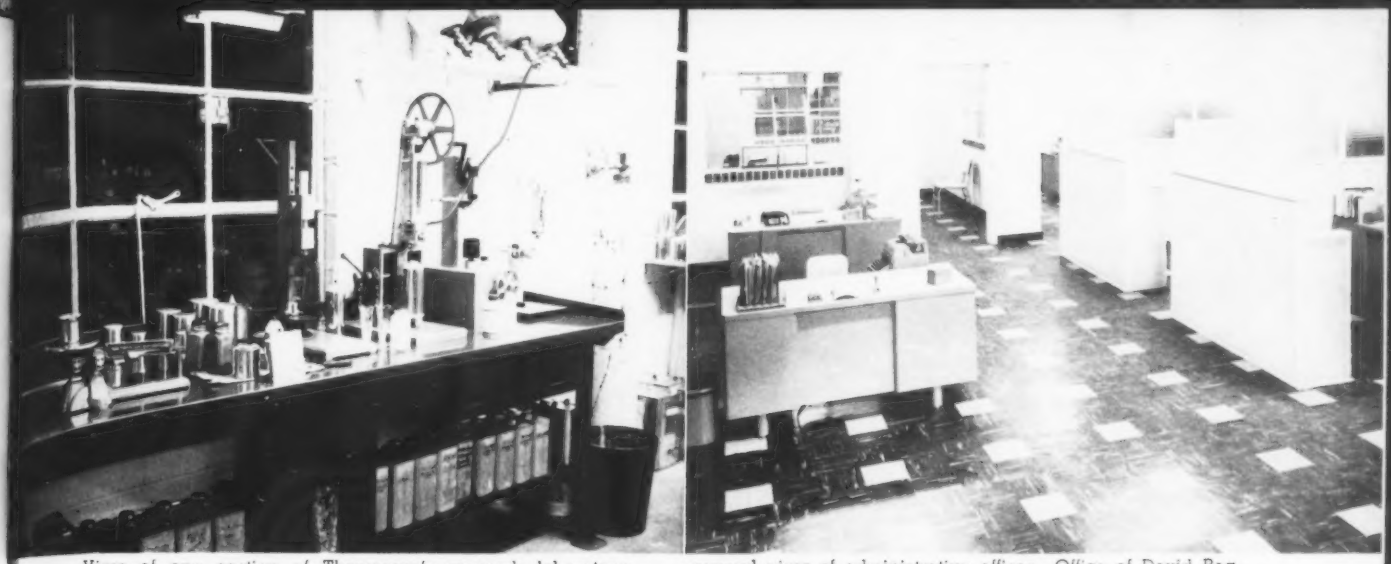


View of one section of Thomasson's research laboratory. Shown is experimental package filling equipment. At right is general view of administrative offices. Office of David Bagenstoe, vice-president and general manager is shown at rear.

D.C., printer who supplied the firm with labels was roused from bed; he caught the first plane to Philadelphia, arrived within six hours; and started rewriting orders. Three days later new labels were delivered.

Bampton contacted and hustled to competitors across the country, asking them to load for him on a sub-contract basis. All agreed. One man literally offered the keys to his plant.

Suppliers were contacted to rush new shipments of cans, valves and cartons. One can manufacturer who read about the fire in the newspaper, rerouted a freight-carload of cans from New York state, had them where Thomasson needed them in a matter of hours.

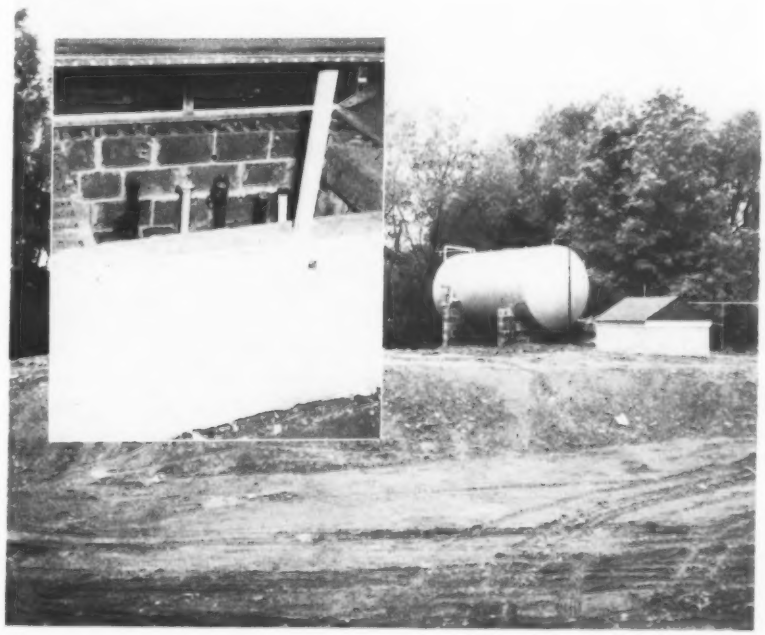
Company officers sat down and from memory recorded shipments that were en route, telephoned customers to confirm exact amounts. Thomasson contracts, in common with those of most manufacturers, included a clause providing for delays in delivery due to fires, floods, strikes and the like. If it had need to, the firm could have invoked these clauses. It didn't have to. Judged solely on the orders shipped, it would be possible to say there never had been a fire—not one delivery was late.

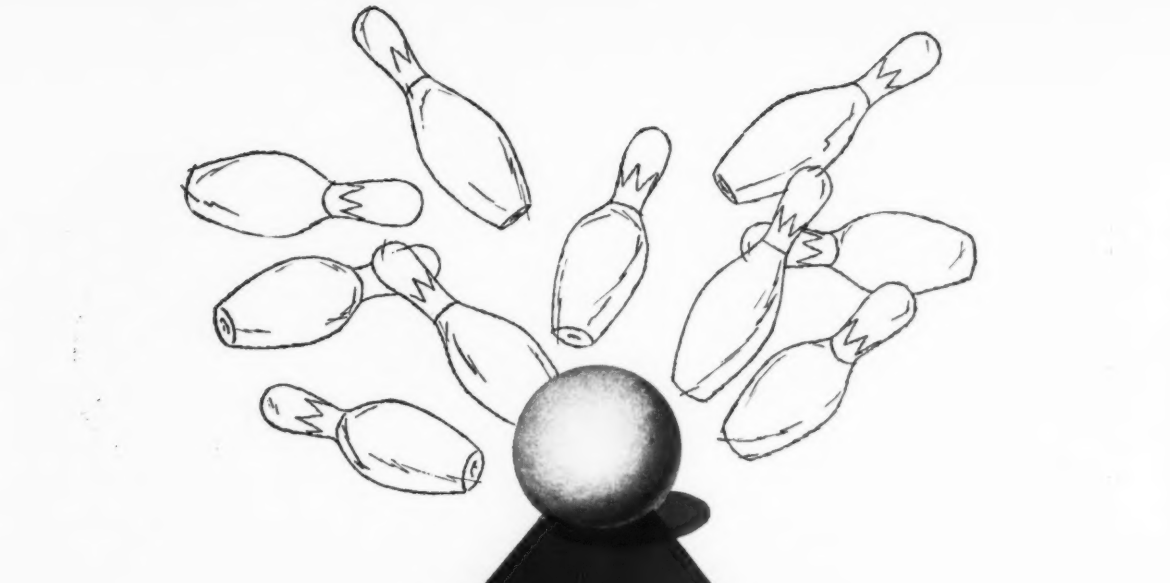
Faced with having to find an existing plant, or work in temporary quarters until a new plant was constructed, another survey of Delaware Valley led right back to the old plant site in Norristown. A long-term lease was signed to build the new plant, with an option to buy. But this time there was a big difference: Instead of moving machinery into a plant built for something else, the new plant was to be designed and built to the plans of Thomasson engineers, incorporating the most efficient aerosol loading techniques and the last word in safety precautions.

Thomasson's new plant has four complete and separate aerosol production departments, fully equipped to specialize in the specific aerosol fields of cosmetics (i.e., colognes, shaving creams, hair sprays), pharmaceuticals; household specialties (i.e., insecticides, animal sprays, room deodorants, window sprays, and, of course, the fast-growing spray paint field). Each production area has its own sprinkler system, with

(*Turn to Page* 94)

Storage tank area. In addition to 6,000 gallon tank above ground, five tanks of same size are under ground. Receiving pipes, through which tanks are filled with solvents, etc., are housed in shed at right of tank. Color coded pipes in shed are shown in inset.





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Plastics and Coal Chemicals Division also produces:

Tar Acids—Phenols, cresols, cresylic acids and xylenols refined to rigid specifications and standardized for complete reliability.

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Allied Chemical

Practical aspects of interaction of

Surfactants and Disinfectants

By Robert F. Prindle*
Lehn & Fink Products Corp.
New York

SOON after 1867 when Lister established carbolic acid as a useful disinfectant, investigations were begun to find other, more effective materials. Since many of these compounds had only limited water solubility, it was inevitable that surfactants were soon to be used for dispersion. Historically, then, the alkali soaps of fatty acids have been employed for this purpose and disinfectants based on cresols, cresylic acids, coal tar acids and other phenolic fractions dispersed in water by soaps have been widely used for many years. A typical formulation consisted of the phenolic, potassium soap, some water and perhaps a small amount of alcohol, glycerine or other miscible solvent. Upon dilution with water a milky emulsion resulted which was stable enough for the purpose. Later refinements, such as careful selection of cresylic acid fractions, made possible the marketing of effective, useful preparations.

When synthetic phenol derivatives became available, the disinfectant formulator had highly active, stable, compounds at his disposal. With most of these clear dispersions can be formulated. Wolf (1) in 1945 presented a comprehensive discussion of phenolic disinfectant formulation.

Other types of chemical disinfectants are available such as active halogen compounds, quaternary ammonium compounds and organo-metallic salts. Surfactants are of little importance in these types since most have considerable water solubility. Surfactants play an important role in the case of phenolics and our discussion is therefore limited to formulation of phenolic disinfectants.

Since phenol and its derivatives have been used since 1867, the literature is voluminous and, in many respects, confusing and contradictory. Variables in raw materials, methods of formulating and, most importantly, methods of testing all contribute to this confusion. However, it is evident that several factors contribute to the germicidal effectiveness of phenolic disinfectant formulations. Among these are:

1. Type of active ingredient;
2. Type of surfactant;
3. Ratio of surfactant to active ingredient; and
4. pH.

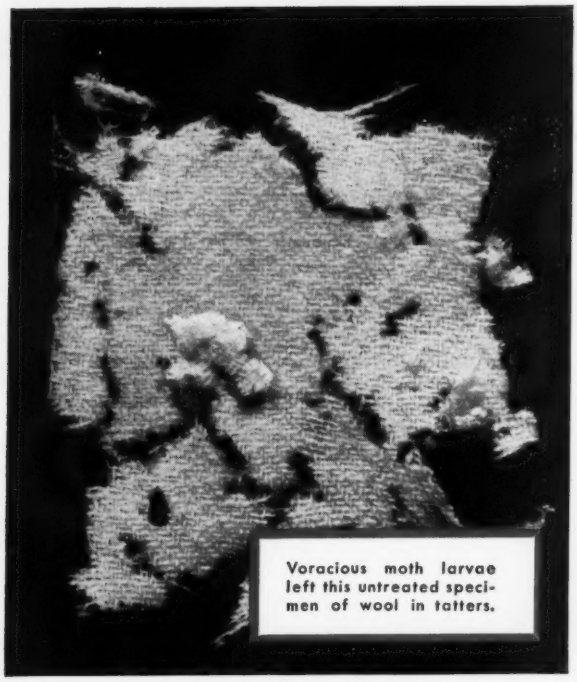
Before discussing the technical aspects of disinfectant formulating, we must consider the legal aspects since the Federal Insecticide, Fungicide and Rodenticide Act of 1947 controls the labeling of disinfectants. The Act is administered by the U.S. Department of Agriculture and two official test procedures, Phenol Coefficient and the Use Dilution Method, are described in Official Methods of Analysis of the Association of Official Agricultural Chemists (2). The Phenol Coefficient is the common method of comparing disinfectants.

A suspension of *Salmonella typhosa* in broth is added to the disinfectant dilution and sampled at 5, 10 and 15 minute intervals. The maximum dilution of the unknown germicide in 10 minutes is compared with the maximum germicidal dilution of phenol. The Phenol Coefficient is calculated by dividing the effective dilution of the unknown by the effective dilution of phenol. It was formerly accepted that the effective dilution of a disinfectant for general use should be equivalent in activity to that of five per cent phenol. To obtain this effective dilution the *Salmonella typhosa* Phenol Coefficient was multiplied by 20. This was later shown to be only an approximation and the disinfectant use dilution must now be confirmed by the Use Dilution Method. This procedure calls for applying a film of *Salmonella cholerae suis* to 10 penicillin assay cylinders, drying and then exposing the dried film to dilutions of the disinfectant. The dilution showing no growth after 10 minutes exposure for all 10 cylinders is taken as the use dilution of the disinfectant.

Both the Phenol Coefficient and the Use Dilution Method are commonly followed using *Staphylococcus aureus* and other organisms.

A disinfectant intended for janitorial purposes must be labeled according to the *Salmonella cholerae suis* Use-Dilution data. A preparation intended for hospital dis-

*Paper presented during meeting of the Society for Industrial Biology, University of Indiana, Bloomington, August 28, 1958.



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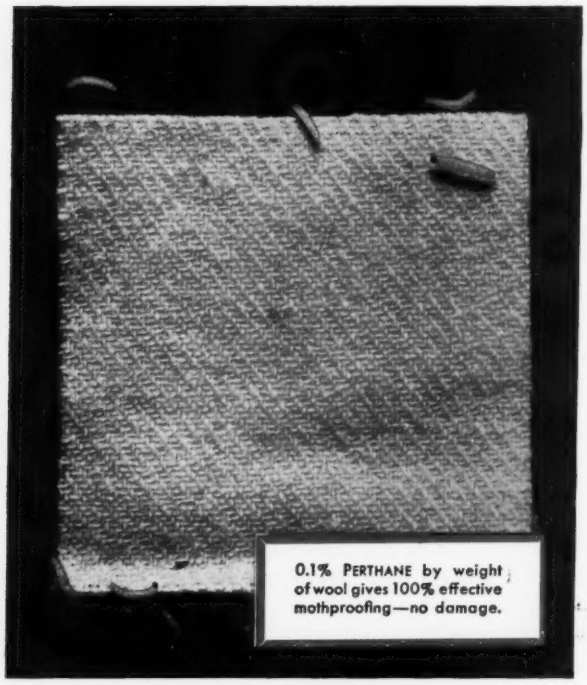

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U.S.I. CHEMICAL NEWS

Nov. ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1958

Methods for Making Borane Fuels Now Being Piloted

Operation of a high-energy-fuel pilot plant for the Air Force began recently at AFN, Inc., Henderson, Nevada. The company is owned jointly by American Potash, Food Machinery, and the U.S.I. Division of National Distillers (see U.S.I. Chemical News—February 1958).

This new plant is a process development unit designed, engineered and constructed by AFN under Air Force sponsorship to develop a large-scale production method for alkyl borane high energy fuels, materials of great importance to the nation's missile program.

ATTENTION: Users of Specially Denatured Alcohol

Citric acid may now be added to toilet preparations containing tartar emetic to prevent clouding, according to an industry circular issued by the Alcohol and Tobacco Tax Division.

Since issuing the regulation that tartar emetic or sucrose octa-acetate must be added to bay rum, alcoholado, or alcoholado-type toilet waters made with specially denatured alcohol, the Division has discovered that tartar emetic produces cloudiness in formulations.

The Division recommends the use of one-quarter grain of citric acid per fluid ounce of finished product to eliminate cloudiness. The circular says: "Permittees now holding approved formulas for the manufacture of alcoholado or bay rum containing tartar emetic and who elect to add citric acid . . . need not submit new formulas on Form 1479-A. However, formulas submitted in future for these products in which citric acid is to be used must show such use."

Cetyl Alcohol "Blanket" Lowers Water Evaporation

Researchers have discovered that a one-molecule-thick layer of cetyl alcohol, spread on the surface of water in a reservoir, can reduce evaporation by as much as 65%. A pound of this harmless chemical will cover 10 acres of surface and last about 3 days against the action of wind and dirt. It is calculated that a pound per acre per month provides adequate protection, and that millions of dollars could be saved this way yearly in areas where water is usually in short supply.

Cetyl alcohol acts by spreading over the water surface to seal out air. It must extend to the reservoir banks to be effective. Its self-healing property insures that there will be no uncovered places on the surface for long, should wind or dirt break the coating.

Some practical problems must be solved before usage can become widespread. These include methods of applying and replacing the chemical. One solution being examined involves placing pelletized cetyl alcohol in screens on floats or buoys on the water.

Tests Confirm That Methionine Is Absorbed Through the Skin

Known Healing Properties of Methionine, Plus Proof Of Skin Absorption, Suggest Wide Application in Topically Applied Cosmetics, Toiletries, Medications

It has been established by thorough study that methionine is absorbed by the body when applied to the skin. Radioactive tracer studies made with guinea pigs reveal that administration of methionine by skin has nearly half the efficiency of oral feeding.

Methionine is an essential sulfur amino acid, a precursor of cystine in the skin, hair, nails and other tissues. It has been shown previously that methionine administered orally:

- decreases healing time of surface wounds
- cures some forms of diaper rash
- aids in disappearance of warts
- protects against radiation damage
- helps reduce tumor growth
- overcomes urinary infections

Experience with topical application has revealed that methionine:

- promotes rapid healing of burns and other wounds
- heals varicose leg ulcers
- promotes good skin tone
- has helped in treatment of falling hair

Now that definite experimental data has been compiled on the rate and extent of methionine absorption through the skin, it is felt that its healing properties can be utilized

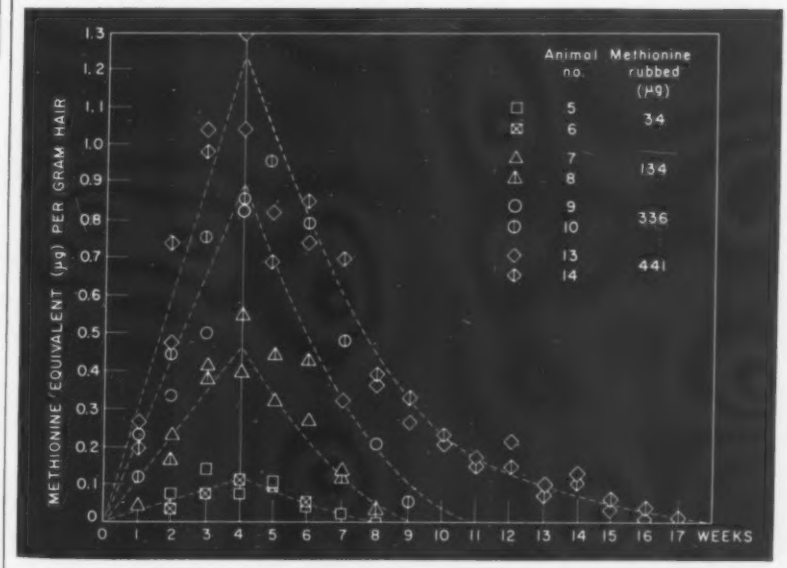
MORE

Esters of ISOSEBACIC® Acid Compare Well with Other Vinyl Plasticizers

Octyl esters of the new U.S.I. ISOSEBACIC acid have been evaluated against accepted vinyl plasticizers in a complete series of tests at the U.S.I. laboratories. The performance results have been coupled with current price information to yield comparisons which should be of interest to makers of vinyl plasticizers.

Here are the conclusions. Octyl isosebacates are less expensive than sebacates and are closely competitive in overall performance. They have an edge over azelates on cost and are about equal in performance. While comparing closely on cost with adipates, they are better on overall performance.

ISOSEBACIC acid is a new synthetic intermediate developed by U.S.I. — a mixture of 2-ethyl suberic, 2, 5-diethyl adipic and sebacic acids. It will soon be available commercially from a new U.S.I. plant at Tuscola, Ill.



Uptake of methionine (S^{35}) in hair of rubbed guinea pigs. (Edwards, L. J.: *Nature*, 173, 1042)

Nov. ★ **U.S.I. CHEMICAL NEWS** ★ 1958

CONTINUED

Methionine

extensively by formulators of cosmetics, toiletries and topically applied medications. Creams and lotions to maintain skin tone, treat burns and sunburn, and hasten the healing of minor cuts, scratches and abrasions are among the possibilities. Incorporation into baby talcs, after-shave lotions and men's hair preparations is also indicated. The possibilities are many.

Test Procedures

Here's how the tests were made. Methionine labeled with a radioactive sulfur (S^{35}) tracer was applied in aqueous solution to a shaved area on the backs of the test guinea pigs by gentle rubbing. The same solution was also injected intramuscularly into a second group of guinea pigs, and fed orally to a third group. Hair from the treated animals was clipped at weekly intervals, washed, and its radioactivity determined. The per cent of absorption by these three methods of application were, respectively, 1%, 3-5%, and 2%, based upon the test results.

The animals subjected to topical application were treated four days a week for four weeks. Their hair showed a steady build-up of radioactivity during this time. When application was stopped, radioactivity declined steadily. The chart on the preceding page shows the curve.

New Surface Treatment for Polyethylene Makes It Receptive to Printing Ink

A new chemical treatment for giving the surface of polyethylene an affinity for printing inks is outlined in British Patent 772,803. Two types of chemical solutions are mentioned:

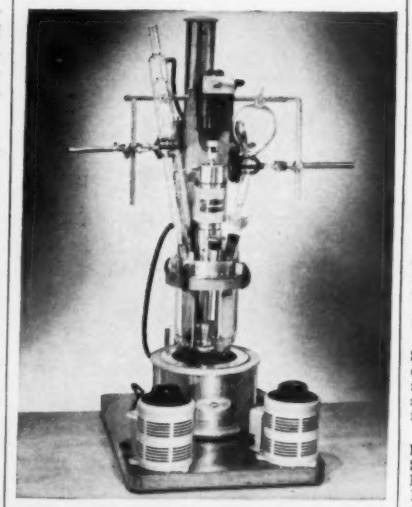
(1) A 4% aqueous solution of a permanganate containing 10-30% by weight of sulfuric acid. A brown permanganate stain results which can be removed with potassium bisulfite without affecting film's receptiveness to ink.

(2) A 30% aqueous solution of a chromate or dichromate containing not more than 30% by weight of sulfuric acid. Both chemical treatments are followed by washing and drying.

New High-Speed Stirrer For Dispersing Sodium

A new unit, designed to apply high-speed stirring to many types of small-scale chemical reactions, has been tested and found satisfactory for dispersing sodium. As part of a research program on preparation and uses of sodium in dispersed form, the U.S.I. laboratories have evaluated the new Chemtor Dispersion Reactor and have found that it compares favorably with other small-scale units suggested in the U.S.I. literature (see the 42-page U.S.I. brochure "Sodium Dispersions" for complete discussions of Cowles Dissolver, Premier Mill Dispersator, Waring Blendor).

The Chemtor Dispersion Reactor, like the others, can be used to increase the surface area of sodium — for faster reactions and higher yields — in Claisen condensations, Wurtz-type reactions, purifications, metallations, preparation of sodium alcholates, preparation of alkyl and aryl sodium, polymerizations and replacement of acidic hydrogen.



Chemtor high-speed dispersion reactor system.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Powdered replacement for liquid acids just introduced is blend of acid salts, activators, surfactants. Acid solutions prepared by dissolving in water. Suggested for activating metals before plating, and as pickling agent. **No. 1410**

Barium chloranilate reagent powder for sulfate determinations is now being marketed. Reduces working time to one half hour maximum, it is claimed. Suitable for analyses of water, petroleum products, many other materials. **No. 1411**

New gamma-sensitive scintillation detector is specially designed for medical diagnostic use of radioisotopes. Is said to be ideally suited for thyroid or kidney function studies, cardiac output determinations, 3-D body scanning. **No. 1412**

Feed industry outlook for next 50 years — covers expected advances in farm economics, biochemical developments, feed automation, liquid supplements, etc. in reprint form. **No. 1413**

New rauwolfia alkaloid raubasine is now available in commercial quantity. Product is also known as ajmalicine, delta-yohimbine and tetrahydroserpentine. **No. 1414**

High purity 2-butene and 1-butene concentrates are now commercially available. The 2-butene contains no isobutylen. , 0.5% max. 1-butene, 1% max. butadiene, 96% min. 2-butene, balance n-butane. The 1-butene contains 5% max. isobutylene, 60% min. 1-butene, balance butanes. **No. 1415**

Disposable-paper temperature indicators for 100, 105, 110°F can now be obtained. Work by irreversible color change. Developed for measuring temperatures attained by heat-sensitive biologicals, etc. in storage and transit. **No. 1416**

Cholesterol's chemistry, biochemistry and pathology are detailed in a new, 542-page book which can now be purchased. Prepared by an international group of authors, book gives complete picture of present knowledge on compound. **No. 1417**

Small-capacity pump or meter designed to fit conventional laboratory stirring motor drives is now on market. Mounts on same ring stand as such motors. Said to handle small flows of Chemical liquids, slurries, pastes. **No. 1418**

Proceedings of Sixth International Conference on Spectroscopy (May 1956) have recently been published as a supplement to Spectrochimica Acta, 1957 and offered for sale. Includes papers on UV absorptiometry, IR spectroscopy, emission, spectrometry. **No. 1419**

Table I. Effect of Structure on Activity of Phenols-Dilution Germicidal in 10 Min.

	S. Typhosa	P.C.	S. Aureus	P.C.
Phenol	1:80-90	1	1:60	1:0
Cresols	1:200	2:5	1:130	2.2
Xylenols	1:400	5.0	1:250	4.2
p-tert. amylphenol	1:1200	15.0	1:2400	40.0
Chlorophenol	1:350	4.3	1:250	4.2
Methyl chlorophenol	1:1000	12.5	1:750	12.5
o-Phenylphenol	1:2000	25	1:1200	20
o-Benzyl-p-chlorophenol	1:12,800	160	1:16,000	200

infection must demonstrate activity against both *Salmonella cholerae suis* and *Staphylococcus aureus* in the Use Dilution Method.

Type of Active Ingredient

Many investigators have studied the relationship between bacteriological activity and structure. Suter (3) has published a comprehensive review of the subject and certain generalizations can be drawn.

Although phenol itself is a potent germicide, the activity is enhanced by the introduction of a methyl group yielding a cresol. Dimethyl phenol or xylenol shows a further increase in activity. The activity of alkyl phenols increases up to the 5 carbon chain derivatives and decreases thereafter. Halogenation further intensifies the activity. Table I lists typical behavior of phenol derivatives.

Simple methylation of phenol yielding the cresols more than doubles the activity. The addition of a second methyl group to the xylenols again doubles the activity. The increase from chlorination is even more pronounced. In the lower members of the alkyl series the activity is generally greater against gram-negative organisms. This action is reversed in the higher members and in the chlorinated series. For instance, in Table I p-tertiary phenol and o-benzyl-p-chlorophenol exhibit strong activity against the gram-positive *Staphylococcus aureus*.

The formulator now has available a considerable variety of phenolic compounds as far as bacteriological activity is concerned. By proper choice of material or mixture of materials a disinfectant can be formulated having the desired activity against a large number of organisms.

Type of Surfactant

The early literature on soap dispersed disinfectants is badly confused by a number of factors. A wide variety of oils was used to prepare the soaps, considerable variations in quality existed, many different testing procedures were followed and little control of pH was used. In 1928 Hampil (4) found that sodium oleate, sodium myristate, potassium palmitate and potassium stearate all had a marked inhibitory effect on the bacteriological activity of certain phenolics. Tilley and Schaffer (5) reported that coconut, castor or linseed soap increased the activity of phenol in the absence of organic matter. Cade (6) reported that the activity of phenols is materially increased by the addition of soaps

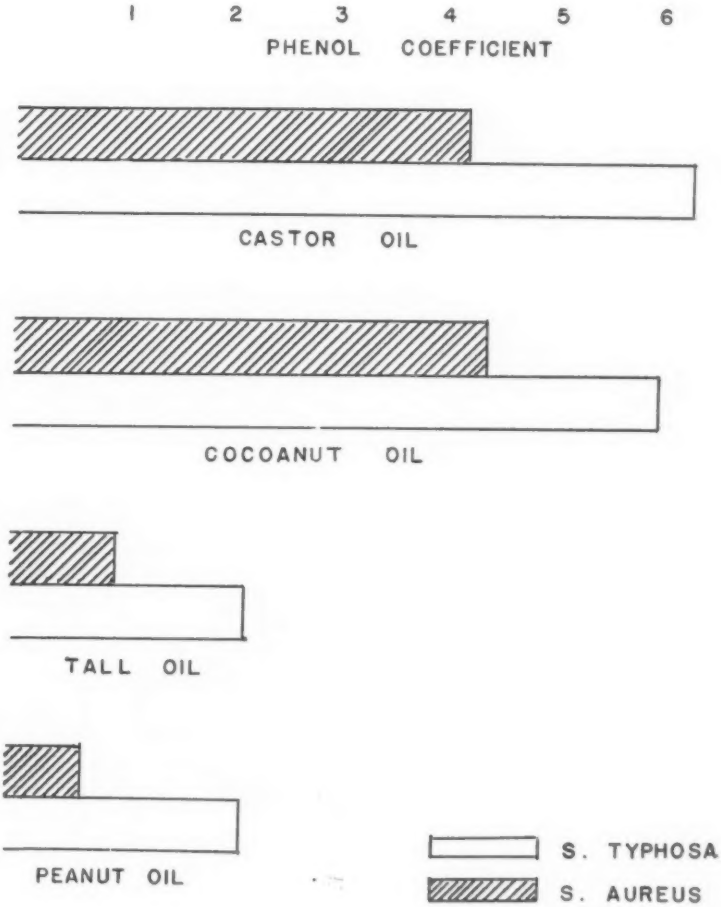


FIGURE I

EFFECT OF TYPE OF SOAP ON ACTIVITY OF PHENOLICS

up to a certain concentration after which the addition of more soap reduces the germicidal power. Bean and Berry (7) in 1951 explained this behavior as a function of the micelle formation of the soap. They found the bactericidal activity of solutions of benzylchlorophenol to be related to the concentration in the micelles and independent of the overall concentration. They also found the maximum activity to occur at the critical micelle concentration which differs for each type of soap.

Figure I shows the activity of disinfectants formulated with castor, coconut, peanut and tall oil soaps. Each contained 12.5 per cent o-phenylphenol, 27 per cent anhydrous soap and was adjusted to pH 9.0-9.2. The activity of a castor soap formulation is three times as great as a formula made with peanut oil when the test organism is *Salmonella typhosa*. When tested against *Staphylococcus aureus* the activity of the castor formula was about four times that of the peanut soap formula.

In recent years a wide variety of synthetic surfactants has become available which have many desirable features. They are uniform in concentration and in composition, free from foreign material, stable as received and in solution. Many are now competitive in price with natural soaps.

When natural soap dispersed disinfectants are diluted with hard water, the insoluble calcium and magnesium soaps precipitate. Although this has no effect on disinfectant activity, it certainly is undesirable from the consumer's viewpoint. Most synthetic detergents have much greater tolerance to hard water and make dispersions with much greater customer acceptance.

Synthetic surfactants vary widely in their capacity to solubilize phenolics and also vary widely in their effect on bacteriological activity. Of the three classes of synthetic surfactants, anionic, cationic and non-ionic, the anionic have the greatest versatility. Many of these are excellent solubilizing agents for phenolics and in most cases the activity of the preparation is at least as good as a natural soap dispersed disinfectant. In some cases the activity against *Staphylococcus aureus* is greatly increased.

Table II. Activity of Phenols Vs. Sodium Salts-Dilution Germicidal In 10 Min.

Phenol Coefficient Procedure

	S. Typhosa	P.C.	S. Aureus	P.C.
o-Phenylphenol	1:2500	28	1:1200	20
Na o-Phenylphenate	1:1500	17	1;800	13

Use-Dilution Procedure

	S. Choleraesius	S.Aureus
o-Phenylphenol	1:2000	1:1000
Na o-Phenylphenate	1;300	1:100

Modified Phenol Coefficient Procedure for M. Tuberculosis

		P.C.
o-Phenylphenol	1:1500	25
Na o-Phenylphenate	1:200	3.3

Greater latitude in pH adjustment is possible since the alkyl aryl sulfonic acids have much greater water solubility than the fatty acids. Highly active formulations can be made having an acidity as high as pH 3.

The non-ionic detergents generally reduce or even destroy the activity of the phenolics and have little value in formulation. The cationic surfactants are generally incompatible.

Surfactant Phenolic Ratio

Many investigators have reported that the effect of soap on the activity of a phenolic is related to the ratio of soap to disinfectant. When the ratio is as small as practicable, the greatest activity is obtained.

When formulating with synthetic detergents, such as alkyl aryl sulfonate, the ratio effect is much smaller. In fact, over the practical formulating range no effect on activity is found. Figure II shows the effect of varying the surfactant-phenolic ratio with phenol concentration and pH remaining constant. No change in activity is found until the ratio exceeds 3:1. The 4:1 ratio is physically unstable and not a practical formulation. This behavior was observed

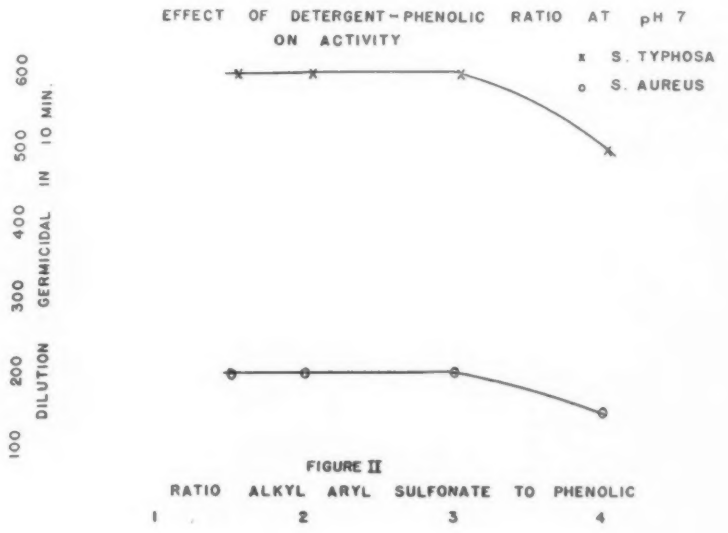
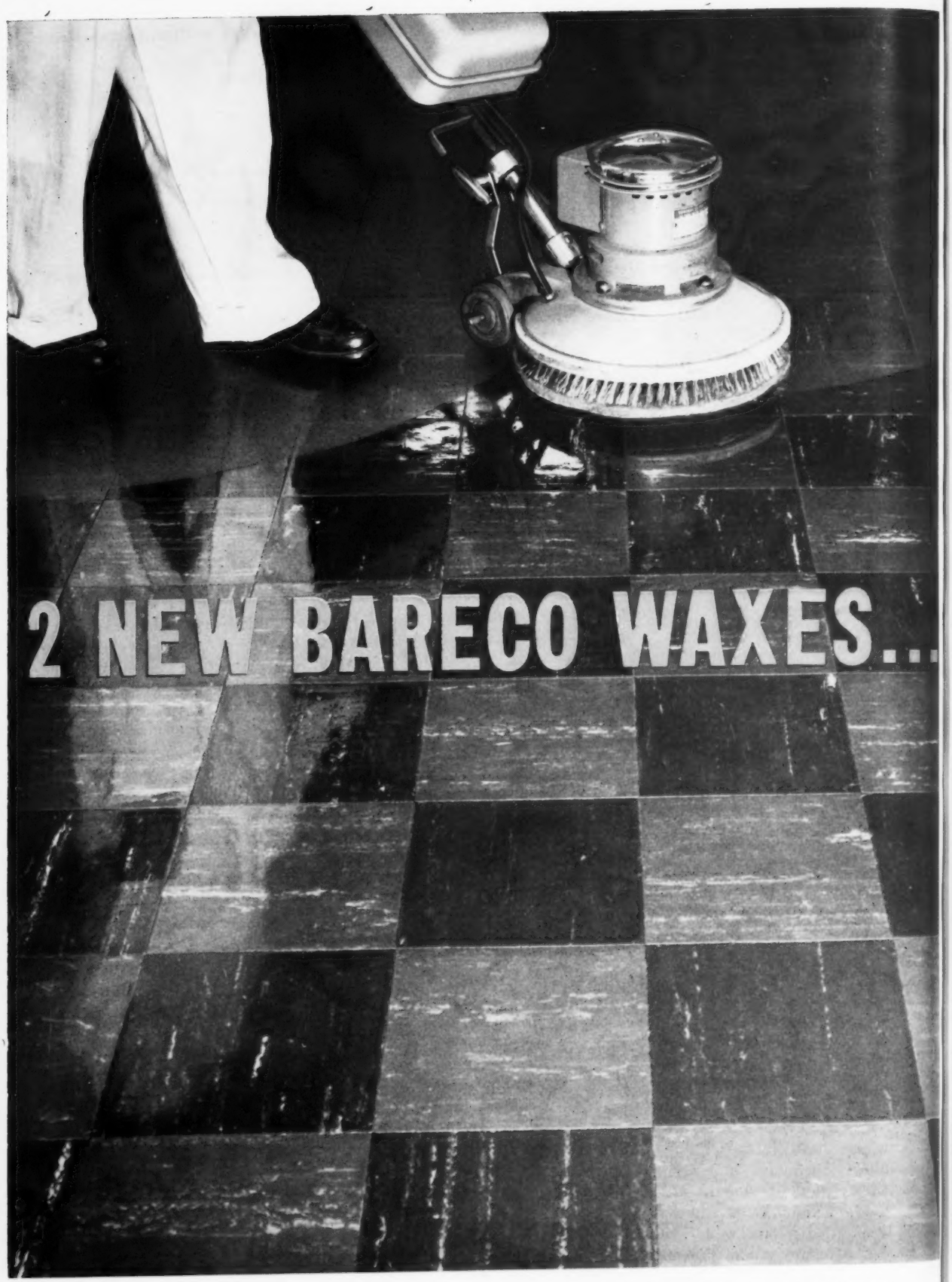


FIGURE II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M.P., ASTM D127-49, °F.	200-210	205-215
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at pH 7.0 and at 10.2 with both *Salmonella typhosa* and *Staphylococcus aureus*.

Effect of pH

The pH of disinfectant formulations is a highly important feature. It is well established that a decrease in pH favors germicidal action of phenolics. As the H ion concentration increases the phenol-phenolate equilibrium is shifted toward the undissociated phenol. It has been shown that free phenol can penetrate the bacterial cell walls more rapidly than the corresponding ion and this may well explain the relationship between pH and activity.

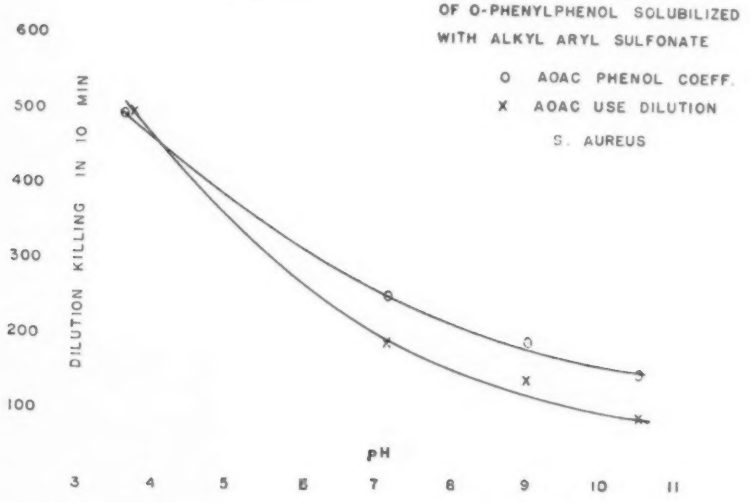
Table II shows the difference in activity between phenols and their sodium salts. In the Phenol Coefficient test the activity of sodium o-phenylphenate against *Salmonella typhosa* is about 60 per cent of that of o-phenylphenol. In the Use Dilution Method the activity of the sodium salt is only 15 per cent of the free phenol with *Salmonella cholerae suis* and 10 per cent with *Staphylococcus aureus*. When tested with *Mycobacterium tuberculosis* by a modified Phenol Coefficient procedure as described by Wright and Shternov (8) the activity of the sodium salt was found to be about 15 per cent of the free phenol activity.

Figure III shows the effect of pH on the activity of o-phenylphenol solubilized by an alkyl aryl sulfonate. All dilutions were made with an appropriate buffer in order to maintain the initial pH of the disinfectant. Both Phenol Coefficient and Use Dilution Method were followed. At pH 3.5 both procedures showed an unusually high level of activity against *Staphylococcus aureus* where a 1:500 dilution was effective in 10 minutes. As the pH increased, the activity in the Use Dilution Method decreased at a greater rate than in the Phenol Coefficient. Similar results were obtained with *Salmonella typhosa*.

General Properties

In addition to bacteriological properties disinfectants must have certain other properties to make a commercially valuable product. Since production costs frequently determine the success or failure of a commercial product, raw material costs must receive careful consideration. The vegetable oil market is subject to wide fluctuations and, when making natural soap dispersal disinfectants, shrewd purchasing can often result in very substantial cost reductions. Purchase of as many raw materials as pumpable liquids materially reduces handling costs.

FIGURE III



The cost per unit of use dilution is the proper basis for comparison of disinfectants. The proper combination of surfactants and disinfectant chemicals for the concentrate must be chosen for optimum use dilution costs.

A disinfectant must have a shelf life in the commercial packaging which will permit warehouse storage and extended storage by the customer. Glass presents no problems other than breakage, shipping weight and cap liner materials. Cap liner materials can be readily tested by storage of samples at 105°F. for one month. Unsuitable materials are readily distinguished under these conditions.

Most soap dispersed disinfectants can be packed in unlined steel drums. However, synthetic detergent dispersed disinfectants are quite corrosive to plain steel and lined drums must be used. Elevated temperature storage of samples will readily determine a suitable container.

A salable disinfectant must have an odor acceptable to the user. It may or may not be colored. It must be conveniently measured and diluted.

Oral toxicity and irritation to skin must be determined and, if necessary, precautionary labelling used as specified by the Federal Insecticide, Fungicide and Rodenticide Act.

Conclusion

In conclusion it can be said that formulation of phenolic disinfectants requires careful consideration of a number of factors. The manufacturer must consider the selection of materials which will combine to give a disinfectant having the greatest degree of bactericidal effectiveness, acceptable costs and market appeal.

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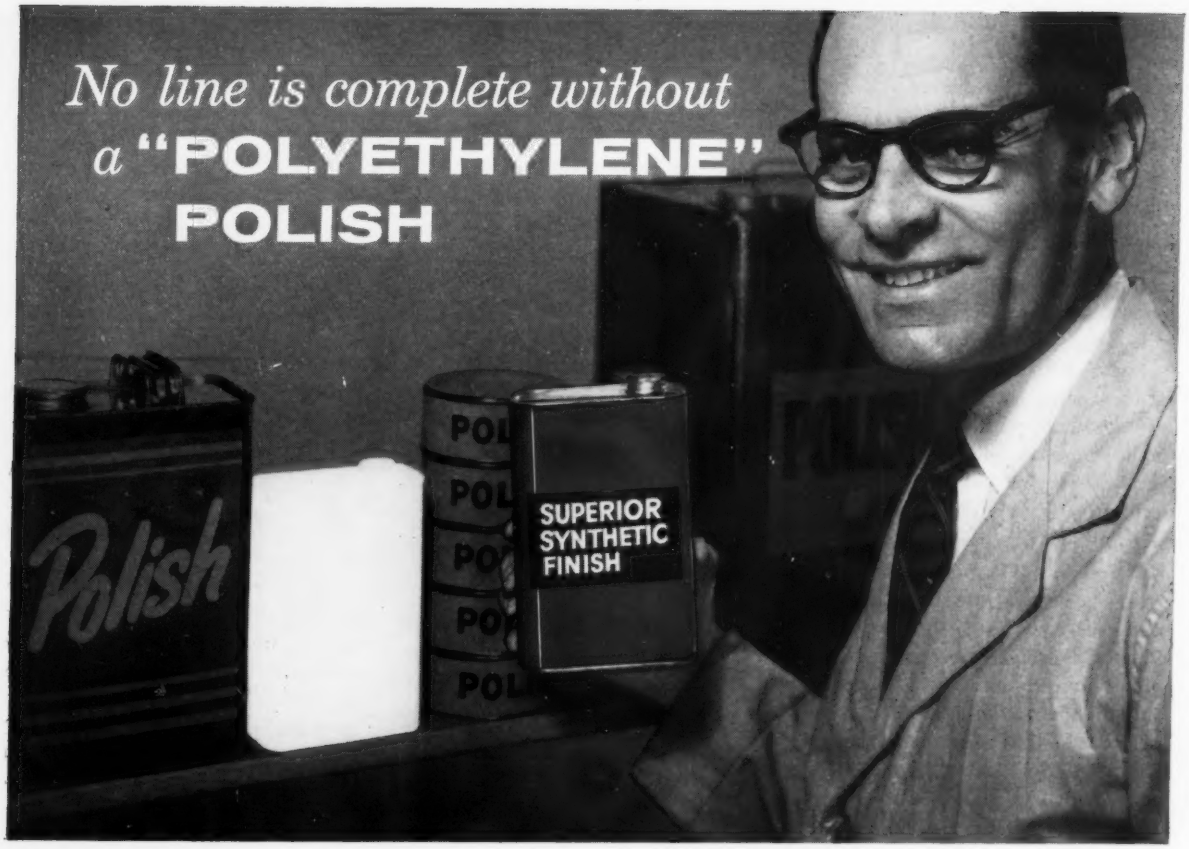
1. Wolf, Paul A., *Soap and Sanit. Chemicals*, 21(4), 116 (1945)
2. Official Methods of Analysis of the Association of Official Agricul-

(*Turn to Page* 178)



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Paste or liquid, don't wait any longer to get on the synthetic polish profit bandwagon! The many superior characteristics of polishes formulated with A-C Polyethylene are now well known throughout the industry, and a ready-made market awaits your product. Polishes containing A-C Polyethylene show increased durability, gloss and non-slip properties. Water spot resistance, improved performance under wet-traffic conditions, flexibility, and buffability are other premium characteristics attainable with A-C Polyethylene.

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A-C Polyethylene is compatible with other materials used in polish manufacture. You can prepare fine particle size, stable emulsions and concentrates in formulations containing as much as 56% solids. Available in any quantity, at a stable price, this polymer solves the fluctuating market conditions inherent in dependence on natural waxes. Sales offices and warehouses are located throughout the United States. Write for information today!

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Allied Chemical

CSMA Schedules Varied Program for 45th Annual Meet, Dec. 8-10

THE 10th anniversary of the aerosol division and the 45th year of the Chemical Specialties Manufacturers Association will be marked at CSMA's 45th annual meeting to be held at the Hotel Commodore, New York, Dec. 8, 9, and 10. Highlights of the program include a panel on labelling to be participated in by Dr. Leroy E. Burney, surgeon general, U. S. Department of Health, Education and Welfare; Dr. Leona Baumgartner, Commissioner of Health, City of New York, and George P. Larrick, Commissioner of Food and Drugs, Food and Drug Administration.

The annual aerosol package contest display will be climaxed by the aerosol package awards to be presented at the luncheon session on Tuesday, Dec. 9. O. V. Tracy, president of Enjay Co., New York, will be the featured speaker at this luncheon.

Highlight of the general luncheon session on Wednesday, Dec. 10, will be the presentation of an achievement award to Dr. Emil G. Klarmann, vice-president and manager of technical services, Lehn & Fink Products Corp., New York. Dr. Klarmann was elected to receive this honor by unanimous vote of the CSMA board of governors. A talk will be given at this luncheon by Fred C. Foy, chairman and president of Koppers Co., Pittsburgh.

Basic schedule of the meeting is as follows: Monday, Dec. 8: meetings of the board of governors, division administrative, general, and scientific committees. Registration and the aerosol package contest display will start.

Tuesday morning, Dec. 9, will be devoted to meetings of the aerosol; soap, detergents and sanitary chemicals; and insecticide divisions. In the afternoon of Dec. 9 the automotive and the waxes and floor finishes divisions will meet.

On Wednesday morning, Dec. 10, a general session will hear reports by CSMA secretary H. W. Hamilton and by P. C. Reilly, Reilly Tar & Chemical Corp., Indianapolis, association treasurer. James E. Ferris, Hooker Chemical Co., Niagara Falls, N. Y., president of CSMA, will deliver his address. These speakers will be followed by the panel session on precautionary labelling mentioned above. At this session CSMA will elect officers for 1959.

Wednesday afternoon, Dec. 10, will be devoted to sessions of the automotive; the soap, detergents and sanitary chemicals; and the waxes and floor finishes divisions. A joint meeting of the disinfectants and sanitizers and the insecticide division is also scheduled.

The program of the aerosol division for the morning of Dec. 9 includes: Report of the chairman of aerosol administrative committee, W. E. Graham, Clayton Corp., St. Louis; report of the chairman of the aerosol scientific committee, J. J. Buchanan, Continental Can Co., Chicago; "Role of Aromatics and Fragrances in the Aerosol," by E. R. van Liew and Victor De Giacomo, Givaudan-Delawanna, Inc., New York; "Food Aerosol Custom Filling," by Clarence P. Clapp, Western Filling Corp., Los Angeles; "The Impact of Aerosols on Advertising of Consumer Products," by Joseph T. Tomlinson, General Chemical Division, Allied Chemical Corp., New York; and the annual aerosol survey by A. H. Lawrence, Jr., E. I. du Pont de Nemours & Co., Wilmington, Del.

Dr. Leroy Burney

Concurrently with the aerosol division the insecticide division will hold its opening meeting on Tuesday morning, Dec. 9. Scheduled is: Address of the division chairman, John A. Rodda, Fairfield Chemical Division of the Food Machinery and Chemical Corp., New York; followed by "Action of Irradiation on Bacteria and Fungi," by John D. Hilchey, Pesticide Section, Quartermaster Research and Development Center, Natick, Mass. Also programmed is a materials symposium, moderator for which will be A. C. Miller, Gulf Research and Development Co., Pittsburgh, Pa. Participants include: J. B. Moore of McLaughlin Gormley King, Minneapolis, on repellents; G. A. Neumann of Union Carbide Chemicals Co., New York, on new information on "6-12"; E. T. Snipes, Chemagro Corp., New York, on "Co-Ral"; S.A. Hall, U. S. Department of Agriculture on "Barthrin"; R. C. Back, Union Carbide, on "Sevin"; and D. M. Baldwin of Dow Chemical Co., Midland, Mich., on "ET-57."

The symposium will be followed by a report of the insecticide scientific committee presented by Harry L. Haynes, National Carbon Division of Union Carbide Corp.

Two papers are tentatively slated for the meeting of the disinfectants and sanitizers division Tuesday morning, Dec. 9: "Problems Presented by the Presence of Micro-Organisms in Production," by R. C. Allred, Continental Oil Co., Ponca City, Okla.; and "Problems Presented by the Presence of Micro-Organisms in Finished Products," by John McGrogan, Atlantic Refining Co., Philadelphia. These

two speakers will be preceded by the report of the division chairman, Irving Gaines, Onyx Oil and Chemical Co., Jersey City, N. J.

A symposium on anionic surface active agents will highlight the soaps, detergents and sanitary chemicals division meeting the morning of Dec. 9. Anthony M. Schwartz of Harris Research Laboratories, Inc., Washington, D. C., will be chairman. Speakers will include: C. C. Tillotson, Procter & Gamble Co., Cincinnati, on "Anionic Surface Active Agents in Heavy Duty Household Detergents"; a representative of Lever Brothers Co., New York, on "Anionic Surface Active Agents in Light Duty Household Detergents"; J. M. Longfellow, Colgate-Palmolive Co., New York, on "Anionic Surface Active Agents in Toiletries and Personal Products"; J. B. Davidson, Cowles Chemical Co., Skaneateles Falls, N. Y. on "Anionic Surface Active Agents in Heavy Duty Industrial Cleaners"; and J. Edward Lynn, consultant, Old Greenwich, Conn., on "Anionic Surface Active Agents in Textile Processing."

Tuesday afternoon, Dec. 9, the waxes and floor finishes divisin calls for: Address of division chairman, C. S. Kimball, Foster D. Snell, Inc., New York; "A New Simplified Technique for the Manufacture of Dry-Bright Wax Emulsions," by Irwin Y. Straus, Dura Commodities Corp., New York; "Acrylic Emulsion Polymers—Their Uses and Formulating Principles," by George L. Brown and Richard E. Zdanowski, Rohm & Haas Co., Philadelphia; "Catalyzed 'Epon' Finishes," by A. F. Bohnert, Federal Varnish Division, Chicago; and report of the scientific committee of the waxes and floor finishes division by Donald Whyte, S. C. Johnson & Son, Inc., Racine, Wis.

The aerosol division program for the afternoon of Wednesday, Dec. 10, lists the following speakers: Roy M. Barnes, Jr., E. I. du Pont de Nemours & Co., on "Success With Safety"; T. F. Dunne, General Chemical Division, on "The Determination of Skin Chilling Effects of Various Propellants and Mixtures in Different Solvent Systems"; W. B. Leighton, Union Carbide Chemicals, on "Aerosol Surface Coatings, With Emphasis on Determination and Value of Viscosity of Such Systems"; Francis A. Mina, Lodes Aerosol Consultants, Inc., New York, on "Viscosity/Pressure/Time Factors in Dispensing Aerosol Liquids"; and Donald H. Powers, Lambert-Hudnut Division, Morris Plains, N. J., on "Aerosol Aspects of Toiletries and Cosmetic Research."

"Why More Laws?" will be the subject of a talk by Justus C. Ward, head of the Pesticide Regulation Section, Pest Control Division, Agricultural Research Service, USDA. Mr. Ward will speak before a joint session of the insecticide division and the disinfectant and sanitizers division. Another speaker at this joint meeting will be Richard W. Fay, SDCA-Public Health Service, Savannah, Ga., on a subject yet to be announced.

The soap, detergents, and sanitary chemicals division program for the afternoon of Dec. 10 calls for the following papers: "Detergent Practices in Europe," by Ernst Casper, Geigy Industrial Chemicals, Yonkers, N.Y.; Methods for Analysis of Fluorescent Brighteners," by L. E. Weeks, Monsanto Chemical Co., St. Louis; "Synthetic Technique of Demonstrating the Efficacy of Deodorant Soaps and Detergents in the Prevention of Body Odor Development," by Robert C. Ferris and Walter K. Lorenz, Purex Corp., South Gate, Calif.; and "Detergent Patents from the Researcher's Point of View," by N. W. Berst, Diversey Corp.

The meeting of the waxes and floor finishes division in the afternoon of Dec. 10 will hear a paper on "The Determination of Chlorine in Bleached Shellac," by Orlando Tweet, W. K. Miller, and R. H. Simon of S. C. Johnson & Son, Inc., Racine, Wis.; "Scratch Resistance," by Melvin Fuld, Fuld Brothers, Baltimore, Md.; and "Durability of Resin Type Floor Finishes," by N. Traverso, Monsanto Chemical Co.

Social functions planned for the 45th annual meeting include company "Open House" in the evening of Dec. 9; and the annual banquet Dec. 10.

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CSMA Composite Index

A 47-page composite index of the proceedings of meetings of Chemical Specialties Manufacturers Assn., New York, for 1950-57 is now available. Included in the index are committee reports and proceedings from the 36th to the 44th mid-year meetings.

The booklet is divided into three parts including: a list of proceedings with the locations and dates of each; a classification by the six CSMA divisions, plus an administrative and general category; and articles listed in each category numerically.

Part two lists the title of the paper, the author, the edition of proceedings in which it appears, the page number in edition, and a paper number which refers to the numerical listing in part three.

The index is being sent to CSMA members, 1,500 prospective members, and 1,272 college and university libraries. It is available free from CSMA at 50 East 41st St., New York 17.

—★—

MCA to Hear Rusk

Dean Rusk, president of the Rockefeller Foundation, will be banquet speaker at the eighth semi-annual meeting and winter conference of the Manufacturing Chemists' Association, Washington, D. C., to be held Nov. 25 at New York's Statler Hilton Hotel. More than 900 executives from the chemical industry are expected to attend the meeting.

Luncheon speakers include L. G. Bliss, president of Foote Mineral Co., Philadelphia, and Gen. John E. Hull, USA (ret.), MCA president.

Thomasson of Pa.

(*From Page* 79)

fire walls and doors between departments. All electrical equipment is explosion-proof. Special ventilation equipment has been installed as a further safety precaution.

Thomasson's new liquid materials tank farm is one of the largest and most scientifically equipped in the aerosol field. Another feature is the battery of pre-mix tanks. Through this procedure the various components of the formulations are accurately and intimately blended and then pumped into the custom-loading department for packaging. This is the very latest in development of production quality control.

Thomasson maintains another mixing plant as a separate unit, apart from the loading plant, where materials and special formulations are pre-mixed.

The warehouse area is so planned and arranged that customer products may be stored and processed for complete or drop shipment. Truck tailgate loading facilities provide convenience and fast service. The research laboratory is staffed by Don O'Brien in charge of household products. Mr. O'Brien recently joined Thomasson after eight years as product development chemist and aerosol products specialist for Colgate-

James W. Bampton
Thomasson president

Palmolive Co., New York.

The protective coatings laboratory division is headed by Gus Loehr. The laboratory contains the latest scientific equipment for formulation work, new product development and research on existing products. Each product must have its own formula detailed, and Thomasson's quality control includes 136 separate check points. All told, Thomasson's new aerosol facilities include over 70,000 feet of floor space with acres of surrounding space for expected growth.

With the finest, most modern, aerosol loading techniques, equipment and facilities, James W. Bampton and his organization confidently face the future.

Trying to predict the future, however, of the aerosol industry in general, and Thomasson in particular, is something akin to trying to decide how many angels can dance on the head of a pin. (325 million aerosols were sold in 1957 — seven times as many as in 1951.) Most industries don't have unit consumption soar seven-fold in seven years; and most businesses entering their fourth year of existence just after a nearly disastrous fire don't enjoy sales in excess of $5 million for the year, with plans developed for a West Coast plant, and inquiries from aerosol marketers in Europe.

But one thing is certain: As long as people like the convenience, compactness, and cleanliness of aerosol dispensers, the Thomasson team will be able to say, "By pushing a button everybody—marketer, packager and consumer—should benefit."

Canadian Specialties

(*From Page* 66)

A. Robbins – Cartier Chemical Co., Ltd.,
R. S. Sweet—Success Wax, Ltd.,
A. L. Taylor—R. M. Hollingshead Co. of Canada, Ltd.,
G. H. Wood—G. H. Wood & Co., Ltd.,

A. H. Carter – Green Cross Products,

met to decide on the structure and objectives of such an association. Arising out of that meeting there was born the Canadian Chemical Specialties Manufacturers Association of Canada. As so often happens with names of associations, the initials—C.C.S.M.—were found to conflict with other organizations, though not in the same category. To be more distinctive, therefore, they propose to change their name to Canadian Manufacturers of Chemical Specialties Association. It is modeled after its counterpart organization in the United States and, indeed, will be closely affiliated therewith in the interchange of information. Membership in the association has been growing rapidly.

The association comprises six divisions designed to serve the special needs of its members—namely – Aerosol; Automotive; Disinfecting and Sanitizing Chemicals; Insecticides; Soaps, Detergents and Sanitary Chemical Products; Waxes and Floor Finishes. New divisions may be added as the need arises.

In an excellent brochure which they have issued, they define the purpose of their association in a very succinct manner, namely—

To promote the increased use of products produced by the membership.

To promote better standards for the products of the membership.

To improve selling methods.

To act as liaison between the chemical specialty manufacturers and the legislative branches of local, provincial and federal governments and regulatory officials, so as to insure the membership adequate and constructive legislation.

Through the environment of the entire group, to promote the free exchange of non-confidential technical and related information, so that the entire

chemical specialty industry may continue its healthy expansion.

The scope of their activities should gladden the heart of any manufacturer in the highly technical field of chemical specialties in that it will provide an organization through which all reputable individuals or firms engaged in, or allied with, the manufacturing or distribution of such specialties may be united for the purpose of sponsoring scientific research, collecting and disseminating information of interest to the members of these industries, promoting the use of such products through co-operative advertising, consumer education, and other similar means and for the purpose of promoting the mutual interests of the members of the association by any other lawful method of co-operative activity. It will also assist and advise members in the fields of legislation, precautionary labeling, toxicity, and statistics.

Already the association has taken a very active part in connection with the reclassification of the chemical list in the Canadian Customs Tariff. The Federal Government has recognized for some time that the chemical industry has been changing and developing so rapidly that the present tariff schedules have become out-of-date, and they have referred the matter to the Tariff Board with instructions to prepare a revised schedule of tariff items relating to chemicals with recommendations as to rates of customs duty.

This represents an extremely formidable task and the Tariff Board very wisely has referred the matter to the industry itself to, as it were, put its own house in order and come forward with a submission both as regards nomenclature and rates.

It will be recognized that this is a very democratic approach to an enormous problem where so many diverse interests are involved. Nevertheless progress is reported.

It will be of interest to

No anti-slip agent needed

Polishes containing anti-slip agents are safer to walk on but easier for water to spot. Anti-slip agents aren't needed, however, when you base your formulation on Epolene "E." This polyethylene wax has a natural "built-in" slip resistance.

Result: a polish with exceptional slip-resistance *plus* maximum resistance to water spotting.

Now, thanks to Epolene, you need not compromise between a safe wax and a water-resistant wax.

Epolene produces floor polishes that exhibit, in addition to slip resistance, outstanding durability and high gloss. Tests show that Epolene polishes—following a period of normal traffic and rebuffing—actually increase in gloss.

Epolene is Eastman's new low-viscosity, low-molecular weight polyethylene wax, especially produced to meet the exacting requirements of emulsion type polishes. It is hard, tough, and non-discoloring. It is compatible with most waxes, resins and elastomers. Epolene compares favorably with costly waxes such as carnauba, yet it is available from a dependable source at a stable price, unlike many natural waxes.

Manufactured under carefully controlled conditions, Epolene is consistent in quality, shipment after shipment. Thus, you can standardize your formulas and procedures with complete confidence in batch-to-batch uniformity.

Still another advantage. Epolene is supplied in small pellets that handle easily...melt rapidly...blend readily.

Epolene is available also in a non-emulsible form—Epolene "N"—for use in paste polishes. Eastman will be glad to show you how you can take advantage of these new waxes in your formulations. Write today for samples and literature. EASTMAN CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

Epolene

EASTMAN POLYETHYLENE WAXES

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; New York City; Framingham, Mass.; Cincinnati; Cleveland; Chicago; St. Louis; Houston. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

readers in the United States, particularly, that the industry in Canada, primary and secondary, will be recommending the adoption of what is known as the Brussels Nomenclature, which is a systematic grouping and naming of goods handled in International Trade. This remarkable nomenclature was first prepared in 1950 and revised in 1955 by the European Customs Co-operation Council with the following member countries – Germany, Belgium, Denmark, France, Great Britain and Northern Ireland, Greece, Iceland, Italy, Luxemburg, Norway, the Netherlands (kingdom in Europe), Portugal, Sweden and Turkey.

Currently only Germany, France, Italy, the Belgian Congo, Surinam and Austria base their official tariffs on the nomenclature. Other countries are preparing to adopt the structure, notably Great Britain, Brazil and Colombia.

This newly formed Association of Canadian Chemical Specialties Manufacturers is holding its first annual meeting and conference at the Queen Elizabeth Hotel, Montreal, November 12th through 14th. As will be seen elsewhere, a cordial invitation is extended to all interested parties to attend. The program they have lined up for this occasion is very extensive and absorbingly interesting. Special sessions for each of the six divisions have been arranged at which highly competent speakers will discourse on extremely important matters relating to the products produced in the respective divisions. They have not forgotten the social and entertainment side of things to lighten the day.

—★—

Avmor Booklet on Para

The latest in a series of articles and booklets from Avmor, Ltd., 431 St. Helen St., Montreal, is titled "Paradichlorobenzene and Moth Control." Available free from the company, the issue contains complete chemical information and end uses for the product.

Originator of DDT, Geigy Marks 200th Year

PROBABLY best known—at least in the chemical specialties field—for its discovery of DDT, the Swiss chemical firm of Geigy this year marks the 200th anniversary of its founding. Some of the details of the history of this world wide chemical organization, which dates back to 1870 in the United States, are contained in a 125-page book just issued to commemorate the anniversary. The history, activities and organizational structure of the Geigy organization are discussed in three languages. Exceptionally beautiful photographs accompany the text.

Swiss industry has, by necessity, a cosmopolitan outlook and complexion. Geigy's parent plants in Basle export about 90 per cent of their production. Very naturally the book starts by viewing the place of Swiss industry in relation to world economics. Next, the chemical industry is shown in the light of the country's overall business.

Machines, watches, chemicals, and textiles are Switzerland's major manufactures, in order of current production and export volume. All but watch making have grown out of the needs of the textile mills, which headed the exporters' list until very recently. The use of DDT as an insecticide, for instance, was discovered by Geigy research directed toward discovery of a permanent textile mothproofing agent.

The firm was founded in 1758 by Johann Rudolf Geigy, a Basle merchant. At first strictly a trading enterprise dealing in chemicals, dyestuffs, and drugs, Geigy became a manufacturer in 1833 when it set up its own dyewood mills. In 1846 the firm of Johann Rudolf Geigy had 43 representatives working in central and western Europe.

A second Johann Rudolf Geigy entered his father's business in 1854. Under his guidance the firm successfully completed the transition from trade to manufacture. A steam driven dyewood mill and extraction plant was built on a site acquired in 1857. Here in 1859 only three years after Perkin's discovery of the first aniline dye, Geigy began to manufacture Fuchsine. In 1862 another factory was built entirely devoted to the manufacture of coal-tar dyes. The modern era had begun. The site of this plant in Basle is occupied today by Geigy's administrative buildings and research and development facilities.

Foundations for a leading position in the field of chemical research and progress were laid in 1888, when Geigy secured the services of Traugott Sandmeyer, a chemist of exceptional talent and originality.

The family business was transformed into a limited liability company in 1901 which has borne the name of J. R. Geigy S.A. since 1914.

One of the milestones in the company's modern history was the emergence of DDT insecticide in 1941. Paul Mueller, who proved its insecticidal properties in the Geigy laboratories was awarded the 1948 Nobel Prize for Physiology and Medicine.

Another Geigy mothproofing compound known as "Mitin" made its bow at the Swiss National Exhibition of 1939. Later additions to the firm's wide range of pesticidal compounds are diazinon and its formulations.

Geigy makes optical whiteners for use in soaps and synthetic detergents under the trade name "Tinopals" and complexing agents known as "Sequestrenes."

About 50 different enterprises all over the globe make up the Geigy group. Two of the largest associates are in the United States and Britain. Known as Geigy Chemical Corp., the American firm is headquartered in Ardsley, N. Y. It controls plants in McIntosh, Ala., and Cranston near Providence, R. I.

CCDA, NACA to Hear Secretary Benson

SECRETARY of Agriculture Ezra Benson will be the featured speaker on Friday, Nov. 21, at the joint meeting of the Commercial Chemical Development Association, New York, and the National Agricultural Chemicals Association, Washington, D. C. The two day meeting, which begins Thursday, Nov. 20, at the Lord Baltimore Hotel, Baltimore, has as its theme "New Chemicals for Agriculture."

A panel discussion with R. H. Wellman, of Union Carbide Chemicals reviewing new growth regulators, K. C. Barrons of Dow Chemical discussing new herbicides, and E. M. Swisher of Rohm & Haas speaking about new fungicides, will be featured at Thursday morning's session. Luncheon speaker Thursday will be R. Blackwell Smith, Jr., president of the Medical College of Virginia and chairman, sub-committee on toxicology, committee on food protection of the National Research Council.

Additional panel discussions are scheduled for Thursday afternoon with the following panel topics and leaders: "New Insecticides," George R. Ferguson, president, Geigy Agricultural Chemicals, division of Geigy Chemical Corp.; "New Animal Health Products," Robert W. Wolfgang, parasitologist, Hess and Clark, Inc.; and "New Animal Feed Supplements," John H. Hare, head of the development department, agricultural research and development, Charles Pfizer & Co.

After a social hour and dinner following the afternoon session, J. Vernon, NACA president and vice-president of Food Machinery & Chemical Corp., and L. E. Johnson, CCDA president, and industrial chemical supervisor, development and research division of International Nickel Co., will discuss "Agricultural Chemical Development."

On Friday, Nov. 21, the meeting scene shifts to the Agricultural Research Center, Beltsville, Md., for a morning panel meeting devoted to "Research Programs of the U. S. Department of Agriculture Leading to New Chemicals for Agriculture." Luncheon will follow Secretary Benson's address and the panel meeting will be concluded with demonstrations and a tour of the Beltsville Research facilities.

★

New Armour Office

Armour soap division of Armour and Co., Chicago, has opened an office at 1231 Main Ave., Cleveland 13, it was announced recently by the company.

★

NYPCA Appoints Harris

Joseph Harris has been appointed to the new post of executive secretary of the New York Pest Control Association, it was announced last month by Daniel J. Klein, president. The trade association includes exterminating companies in the New York, New Jersey, and Connecticut areas.

Secretary and the technical director of Guarantee Sanitation, Inc., New York, Mr. Harris is a director of the association and the National Pest Control Association. He was previously chairman of the planning committee of NYPCA.

The expanding program of the association's activities and the 100 per cent increase in membership within the past year necessitated the creation of the new post, according to Mr. Klein. Mr. Harris is responsible for the administration of the association and is editor of its newsletter. He also coordinates the activities of several of the association's committees.

Joseph Harris

Detergent Adsorption

(*From Page 43*)

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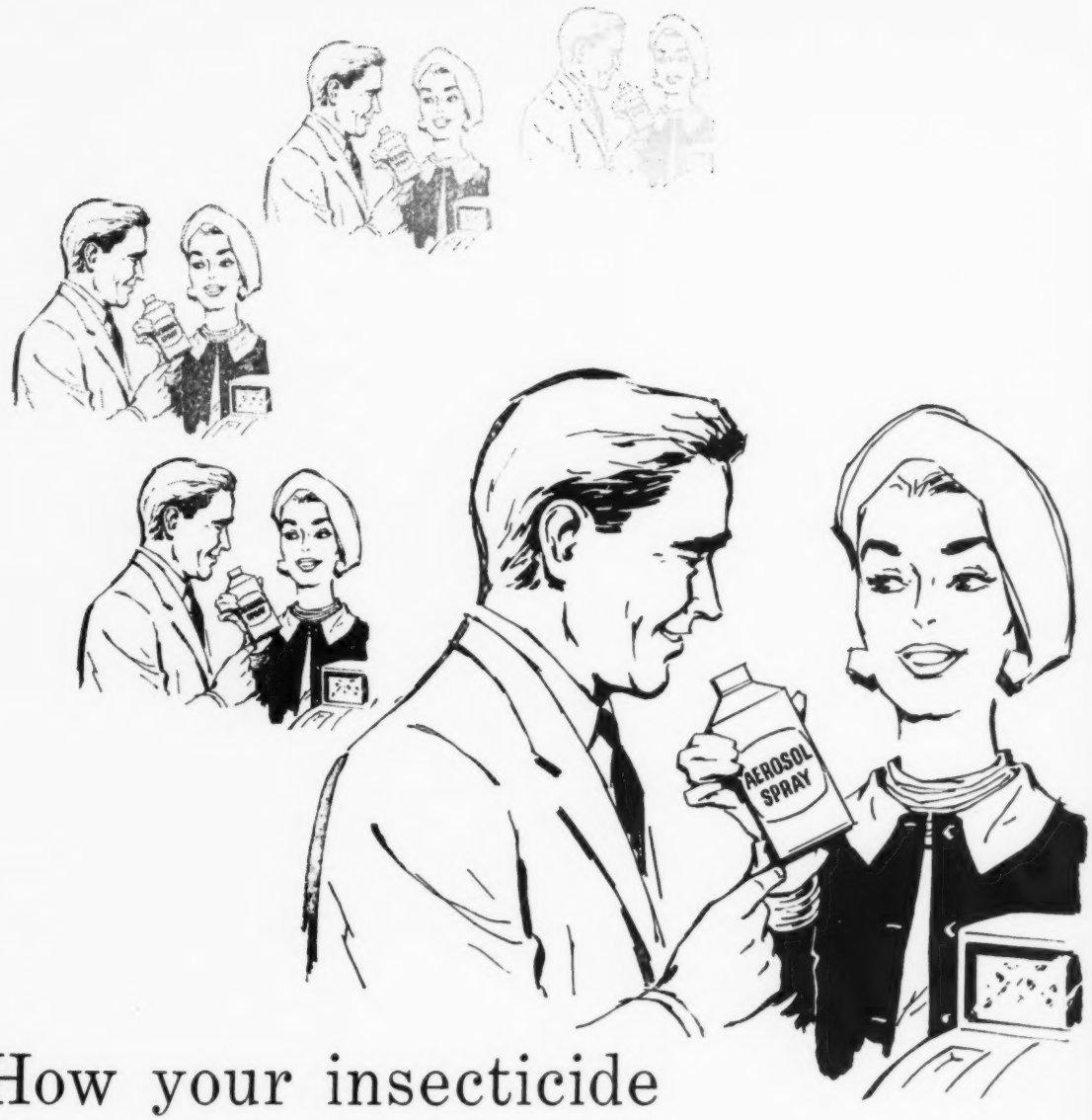

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Packaging...

AEROSOLS · LIQUIDS · PASTES · POWDERS

"Texize" foaming action bleach of Texize Chemicals, Inc., Greenville, S. C., is now packaged in quart and half-gallon glass bottles by Hazel-Atlas Glass Division of Continental Can Co. Half-gallon bottle has two-finger handle. Amber colored bottles carry brand name in raised letters molded in glass. Wrap-around labels by Forbes Lithographing Co. are white, red, blue, yellow. Silver colored screw-on caps — produced by Armstrong Cork Closure Division — carry sales message.

Automotive Chemicals
Cleaners
Detergents
Deodorants
Disinfectants
Floor Products
Insecticides
Laundry Bleach
Metal Cleaners
Moth Products
Polishes
Shampoos
Shave Products
Soaps
Liquid Starch
Toiletries
and other
Chemical Specialties

A market for over 28 billion packages annually

A PACKAGING TEAM NEEDS

The package can determine the success of a product. And so important has the packaging factor become that more and more companies are making packaging decisions through *teamwork.* Specialists from various departments offer their know-how and experience. But to make a packaging team complete, it needs an outside viewpoint. It needs an Anchor Man.

The Anchor Man knows glass packaging. He's helped solve hundreds of tough packaging problems. Through this wide experience, he can help you solve yours, too.

He offers a complete line of Anchorglass® containers—amber, crystal and green—in all standard sizes and styles. The quality of these containers is safeguarded by hundreds of daily checks, tests

AN ANCHOR MAN!

and controls. You get the same high quality standards in the complete line of Anchor® metal and molded closures. And you get container-closure combinations that are best for you in every way.

Contact your Anchor Man. We know you'll want him on your team, too. Anchor Hocking Glass Corporation, Lancaster, Ohio. Branch offices in all principal cities.

ANCHOR HOCKING

Bottles and Closures

Packaging Institute Forum

Debate of contract vs. do-it-yourself aerosol loading and discussion of new plastic films highlight 20th annual forum held in Chicago

THE 20th annual national forum of the Packaging Institute drew over 1,200 packaging specialists to Chicago's Edgewater Beach Hotel, Oct. 13-15 to learn what's new in the $14 billion packaging industry.

In a series of 12 seminars 56 papers were presented on new developments in materials, machinery, products, production and printing. For good measure and in line with the convention's general theme—"Packaging—Food For Thought"—several speakers offered some challenging observations on pertinent possibilities for strengthening the industry's status.

Most serious of these "shockers," perhaps, was the assertion by William Capitman, president of the Center for Research in Marketing, Peekskill, N. Y., that " 'Follow the leader' is the favorite game of most manufacturers."

"Over 90 per cent of the packages designed for the market place today," said Mr. Capitman, "are created with great attention to mechanical and engineering factors and with practically no basis of knowledge of how the consumer will respond to this particular marketing device."

He conceded that there is no simple, cut and dried technique or procedure which can always give the answers to questions about packaging. Therefore, he said, "Planning packaging, planning direction and planning change become extremely important, particularly since every new design and new approach to marketing a package becomes a greater and greater risk economically."

In its detailed examination of how the consumer responds to packaging, he said, the Center for Research in Marketing has learned that "convenience alone is not enough to make a package preferred or make it bring about a purchase of the product it contains."

He cautioned, however, that the function of the package should not be underestimated. The package, he said, is not only a visual device. It is also "tactile, olfactory and taste-oriented. Feel and shape are important and all these are aspects of perception and influence the impact of the package." One of the most important contributions that research can supply, he declared, "is an understanding of the cultural and psychological processes of change in this period of continual change."

Packaging Myth

Robert Sidney Dickens, Chicago package designer, decried "the many myths built up by package designers who talk too much and not too wisely."

"It's true," said Mr. Dickens, "there are isolated cases where packaging alone has done a tremendous job. But the best package in the world will sell a poor product only once. The integrity of the product is, and always will be, the most important element in repeat sales. . . . There are no wonder drugs for packaging problems and there are no wonder workers in the package design profession."

Albert Kner, director of Container Corp. of America's design laboratory, recommended an "integrated" approach to package design in which designers, researchers, production men and salesmen work together to solve realistically the problems involved. None can do the work alone, he said, but through the integrated approach the true and complete answer can be found.

Still further "food for thought" was offered by C. P. Whittier of the Owens-Illinois package research division, Toledo, O., in his stout contention that "wishful thinking does pay off." "There's literally no phase of container packaging that cannot be said to have resulted from someone's wishful thinking" he declared. He cited examples in the field of rigid containers, chiefly glass, where it was true that, as he contended, "If wishful thinking is to pay off, it must be predicated on practicability."

Among the many discussions of technical problems, chemical specialty manufacturers will find particular interest in a group of papers dealing with aerosols, which were presented at sessions of the Institute's drug and pharmaceutical division.

Aerosols

Edwin Pomerantz of Chas. Pfizer & Co., Brooklyn, N. Y., discussed the reasons for the current interest of pharmaceutical manufacturers in aerosol packaging. He examined the limitations of this type of packaging as well as the problems which aerosols impose on pharmaceutical products. Data was also submitted on stability of aerosol products under evaluation and he pointed out essential differences among currently available propellants from a pharmaceutical standpoint. He added advice on "the deciding factor in choice of the proper propellant" and listed also requirements, present and future for pharmaceutical aerosols.

John C. Armstrong of Armstrong Laboratories, Boston, in arguing for contract aerosol packagers listed these advantages:

1. The aerosol contract filler has the advantage of being able to offer the services of an organization of highly trained personnel, familiar with the particular quality control and production problems of aerosols.

2. Where close filling tolerance is essential, such as in aerosol pharmaceutical filling, certain fill-

(case history—Eli Lilly Company)

GERM FREE as only a stainless steel drum can be !

If you process or store products that require absolute sanitation, you'll be interested in how Eli Lilly and Company, Indianapolis, Indiana—one of the world's leading producers of pharmaceuticals—uses Inland stainless steel shipping drums.

Lilly puts Inland all-welded stainless steel shipping drums through a rigid, high-pressure sterilizing process, and then fills them with antibiotics and seals them. Once sealed, the drums are depended upon to keep their precious cargo "Operating Room" sterile—in shipment and in storage.

To provide extra protection for your product's quality, during processing or shipping, it will pay you to check the many advantages of Inland Process and Shipping drums. They are manufactured from several types of stainless steel, in many sizes. Process drums: 30 or 55 gallon capacity. Shipping drums: sizes from 15 to 60 gallons, with all modifications necessary to meet ICC specifications 5 and 5C. Whether you need 1 or a carload—Inland can supply the right stainless drum for your requirements. For a free booklet on "The Use and Care of Stainless Steel Drums," ask your Inland representative or write:

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ers have specialized in this work and have developed or modified machinery to provide extreme filling accuracy.

3. A merchandiser of pharmaceuticals can test market without delay, at fixed filling costs, without risking the necessarily large investment of specialized equipment on a particular program that, for some reason, may not become a commercial success.

The case for "do-it-yourself" aerosol filling was presented by Robert A. Foresman, Jr., Philadelphia aerosol consultant. In some detail he examined the advantages of aerosol filling conducted as a part of overall production on the manufacturer's own premises and the factors involved in deciding on such a program. General costs of installation and operation were explored, also pitfalls and hazards, with procedures recommended for eliminating or avoiding them. Other points touched on by Mr. Foresman included planned physical requirements and the economics of various production levels, overhead utilization efficiencies and personnel problems.

"Cost Substantiation of Aerosol Packaging" was the subject of a paper by Samuel Prussin, director, new products, Aerosol Techniques, Inc., Bridgeport, Conn. Mr. Prussin confined himself to the pharmaceutical and proprietary medicine field and here he weighed the merits of aerosol versus non-aerosol packaging. Among factors which compensate for the increased cost of an aerosol package and which influence the packaging of the product as an aerosol were: 1. The obtaining of a dispensing form not readily obtainable or available in other packaging forms. 2. Accurate metering of from 35 microliters to one teaspoon and better. 3. Particle size control from a gross, wet pattern to an air-borne spray. 4. The "factory fresh" state of the product from manufacturer to consumer. 5. Increased stability. 6. The obtaining of special therapeutic effects.

In the second session of the drug and pharmaceutical section, liners for polyethylene containers were discussed by three authorities.

Charles W. Kaufman
New Packaging Institute President

Squeeze Containers

The popularity of squeeze tubes, bottles and containers is due to the unique physical properties posed by low density polyethylene, J. D. Czarnecki of Bradley Container Corp., Maynard, Mass., declared in a paper on "Packaging "Hard-to-Hold" Products in Polyethylene." But a growing demand exists, he said, for packages with vastly improved barrier properties. Increase in density of polyethylene has helped to retard permeation of volatile substances to a large degree but, he admitted, there is still a need for barrier coatings to provide protection where polyethylene alone is not adequate.

Polyethylene of selected densities, he continued, can now be combined with internal or external coatings to produce packages with desired permeability properties. He explained how a laboratory can measure permeability of material combinations with a fair degree of accuracy. Applicable materials were named and data relative to shelf life were submitted.

Lined Polyethylene

In a paper on "Lined Polyethylene Bottles," J. H. Parliman of the Plax Corp., Hartford, Conn. discussed the development of linings, showed permeation data comparing lined to unlined bottles and covered other technical details as well as commercial limits, such as bottle size range, neck limitations, etc. Mr. Parliman's paper received the Packaging Institute's technical operations committee 1958 award as the technical paper of greatest importance to the field of packaging technology presented during the Chicago forum.

Ralph H. Thomas, director of the Bristol-Myers Co. packaging research laboratory, closed the session on liners with a discussion of the reasons and requirements for internal coatings on plastic containers for various toiletries, drug and cosmetic products. Problems of selecting the proper liner, surface preparation of the plastic, curing and adherence of liner, coverage, production handling, quality control and economics were among points covered in his talk.

Among numerous reports presented on new packaging materials considerable attention was given one on a heat-sealable, cold-water-soluble transparent film, which E. M. Kratz, vice president, Mono-Sol Corp., Gary, Ind., declared will open up an entirely new field for water-soluble packaging. This film, he said, will be applicable to packaging of soaps, detergents, dyes, insecticides, fungicides, oils, medicinals, where it is necessary to dispense a weighted amount without coming in contact with the user. He discussed physical properties of the film, light stability, oil and solvent properties, impermeability to gases, heat sealing, disintegration and dissolution time, etc.

R. Vernon Jones, manager, technical services and development, plastic sales division, Phillips Chemical Co., Bartlesville, Okla., announced the commercial availability of Phillips' new, low-cost "Marlex" packaging film. This, he said, "combines the durability and protection of polyethylene with the handling ability and looks of cellophane." He declared that the "Marlex" film "challenges cello-

(*Turn to Page* 167)

NEW FROM FULD!

NOW YOU CAN ENJOY THE PROFIT-PACKED BENEFITS OF PRESSURIZED-PACKAGED PRODUCTS—THANKS TO FULD BROTHERS' QUALITY-CONTROLLED

AEROSOL CUSTOM FILLING SERVICE!

SMALL LOT RUNS OUR SPECIALTY

Now, even if you are a *limited market* distributor, you can send your sales curve "straight up" with Fuld's aerosol custom packaging service. We handle oil and water bases, liquid and foam products of all types . . . insecticides, air fresheners, polishes, bug killers, spot cleaners, deodorants, bactericides, etc. for household, institutional, and industrial use.

Take advantage of our extensive facilities for product development, merchandising research, custom packaging and quality control.

COMPLETE SERVICE FACILITIES

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We will custom blend to your formula specifications or, package our own tested and proved products under your label—or, assist you in developing new products!

• MERCHANDISING RESEARCH

A recognized leader in aerosol packaged sanitation products, Fuld offers valuable merchandising assistance gained from its experience and continuing research.

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Fuld guarantees rigid quality control on all production, regardless of the size of the run . . . the same consistent quality control that has been our policy for over 30 years.

• CUSTOM PACKAGING

A complete selection of smart new containers with built-in sales appeal. And *all*, with your private brand name prominently displayed! All service confidential.

Your choice of Simulated Lithography or Paper Labels

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Packaging NOTES

Crown Appoints O'Brien

The appointment of George P. O'Brien as manager of can sales for the middle Atlantic region of

George P. O'Brien

Crown Cork & Seal Co., Inc., Philadelphia, was announced last month by Robert J. Siebert, middle Atlantic regional sales manager.

In his newly created position Mr. O'Brien works with district sales managers and sales representatives in the sales development of all can division products.

—★—

Acquires Int. Filling

The acquisition of International Filling Machine Corp., Petersburg, Va., by Chisholm-Ryder Company of Pennsylvania, Hanover, Pa., was jointly announced recently by Edward J. Abendschein, vice-president of Chisholm-Ryder, and Stanley S. Dennison, executive vice-president of International.

International Filling Machine Corp., one of the largest firms in its field, manufactures a complete line of liquid filling machinery, ranging in size from small hand-filling machines to high-speed rotaries capable of filling 300 quart containers per minute. Machinery is made for filling a wide range of products by gravity or a combination of vacuum-gravity methods.

Chisholm-Ryder acquired all manufacturing assets of International. The latter's operation will be moved to Hanover and integrated with Chisholm-Ryder's present facilities. Stanley S. Dennison will be retained as a consultant.

Chisholm - Ryder produces wrap-around labeling machinery, can casing machines, case sealers and container handling equipment. The firm, with its predecessor company, has been in business for 25 years.

—★—

Miami Packager Relocates

Averil, Inc., Miami, Fla., moved into a new plant at 6780 NW 37th Court, also in Miami, Oct. 1. The firm was organized 12 years ago to manufacture and distribute Averil perfumes, started to package various items for others and now is exclusively engaged in contract packaging and private label manufacture, specializing in cosmetics and chemical specialties. The new CBS building, another in the rapidly expanding northwestern industrial section which spills over into Hialeah, contains 10,000 square feet, is a one-story affair, modern and colorful. Offices, laboratories and manufacturing facilities are all under one roof.

Robert Hillstead is president of Averil, Bert Billheimer is vice-president, J. R. Fordham is secretary-treasurer. Various items being packaged for distributors and other manufacturers at present include all types of shampoos, flea powders, auto and other polishes, tire cleaners, battery additives, a complete line of cosmetics, etc. Averil is equipped to handle long and short runs in liquid, cream, paste or dry forms, will store and drop ship where this service is required. Controlled air circulation has been engineered into the new plant, according to Hillstead and Billheimer, to preclude mixing of odors. Averil's plant is on the main line of the Seaboard RR, and space is available for future expansion.

—★—

Drum Phosphating Process

An eight-step phosphating process for 30 and 55-gallon steel drums has been announced by Ben-

Drum being treated by new Bennett process.

nett Industries, Inc., Peotone, Ill. The cleaning and phosphating procedure is said to assure a completely clean drum without contamination from grease, dirt, or oil, either inside or out.

First six steps of the process are in the washer where hundreds of high pressure nozzles spray the inside and outside of the drums, cleaning and preparing the metal surface. In the final two steps the drums are dried and cooling is controlled so that they reach paint spraying equipment at the optimum temperature for paint application.

—★—

Anchor Hocking Moves

The container and closure division office in Terre Haute, Ind., of Anchor Hocking Glass Corp., Lancaster, O., has been consolidated with the tableware division office, Indianapolis, in new quarters for both divisions at suite 102, 2214 North Meridian St., Indianapolis 8. The move became effective Oct. 13.

J. B. Ward, sales manager for the container and closure division has transferred to the new office. Telephone number at the new address is Walnut 4-6268.

Aerosol Product Ideas *for You!*

Are you interested in aerosol pharmaceuticals, cosmetics and toiletries? Cosmetics are the leading sales producers right now and pharmaceuticals will probably make the next big break-through in aerosol marketing. Or are you interested in aerosol household products, whose sales continue to boom?

If so, you'll want the helpful *Product Information Bulletins* prepared by our "Genetron" Aerosol Technical Service Laboratory on many new as well as established products.

They're free. They contain such basic information as: typical aerosol formulations . . . application methods . . . advantages offered by the proposed aerosol product . . . packaging suggestions . . . data on stability, flammability, pressures, etc. . . . competitive products.

The bulletins presently available are listed for your convenience in the coupon at right. Others are continually being prepared, and we will be glad to send them to you if you would like to be put on our mailing list.

One of these product suggestions may be just what you've been looking for to help you tap the dynamic aerosol market! So check the coupon for the bulletins you want and mail it *now!*

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- ☐ Hair Shampoo
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- ☐ Neomycin Foam
- ☐ Neomycin Spray
- ☐ New Hair Spray
- ☐ Poison Ivy, Oak and Sumac Remedy
- ☐ Run Stopper
- ☐ Sarcoptic Mange Spray
- ☐ Spray-on Protective Film
- ☐ Suntan Lotions
- ☐ Wall Cleaner
- ☐ White Shoe Polish
- ☐ Household Aerosol Products (includes such popular products as room deodorants, oven cleaner, glass cleaner, disinfectant, mildew proofer, wax polish, water repellent, etc.)

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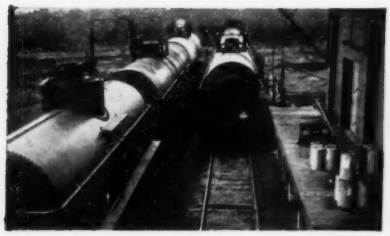
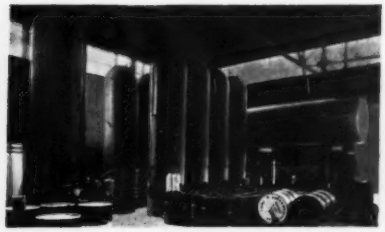
50,000 square feet, as a matter of fact, in which to meet your liquid or aerosol filling requirements. Besides ample facilities for handling your bulk ingredients, we have extensive warehousing space for the storage of your products after packaging. When shipments are to be made, our personnel and equipment are ready to move large or small orders in a hurry... and of course, we're always glad to handle drop shipping. Direct railroad sidings and truck service at our door permits our plant to serve as your warehouse... a central distributing point... saving you time... and money.





For details about our complete services in contract filling (liquid or aerosol), write, 'phone or wire...

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Filling and Packaging Co.
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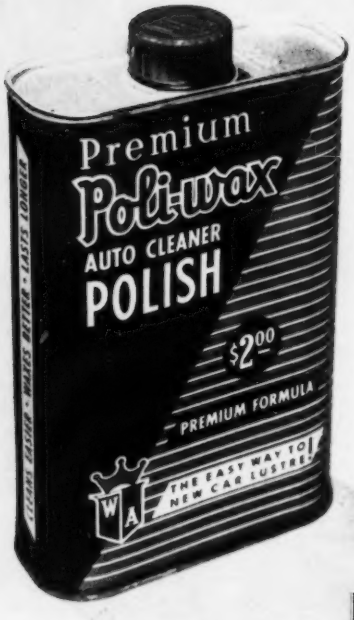
Believed to be the first liquid bleach packed in plastic envelopes, which in turn are packaged in paper cartons, is "Hy-Tex" sodium hypochlorite bleach by Hy-Tex Chemical Corp., Newark, N. J. Six envelopes ("bleach-paks"), each holding 2½ fluid ounces, come in zip-tape, flip-top carton, which retails for 25 cents. To use, housewife tears off top of pak along tape and pours into washing machine. White plastic bags, printed in light blue, are designed by Scientific Packaging Corp., Newark, N. J.

What's New?

A new light weight metal container has been adopted by Yardley of London, Inc., New York, for its "Spray Mist" aerosol cologne. In addition two new fragrances, "Flair" and "April Violets," have been added to the line. The new, gold finish container is four and one-half inches long and one-half inch in diameter. In addition to holding more than the previous container (2¼ fluid ounces), the new unit is lighter. Plastic caps in different colors protect dispensing button of metered valve. Yardley "Spray Mists," also available in "English Lavender" and "Bond Street" retail for $2.00 plus tax. A counter display for the entire line is available.

Just added to the line of White King Soap Co., Los Angeles, is "Sun" heavy-duty, all-purpose, liquid detergent. Designed primarily for removing heavy soil from clothes, woodwork, floors and walls, it may also be used for cold water washing of such fibers as Orlon and Dacron. Packaged in blue cans with golden yellow "Sun" symbols, the new cleaner comes in pints, quarts and half-gallon sizes. Cans are by American Can Co. and plastic caps are from Gibson Associates, Cranford, N. J. Retail price ranges on the three sizes are: pint, 39 to 41 cents; quart, 69 to 72 cents and half gallon, $1.41 to $1.51.

New container for "Chanel No. 5" aerosol cologne was designed by Chanel, Inc., New York, as companion to "For the Purse" perfume container, second from left. Made by the cosmetic container division of Scovill Manufacturing Co., Waterbury, Conn., cap and body of unit are polished black anodized aluminum. Chanel's trademark appears on a polished brass insert in top of cap (fourth from left). Wide center band, most clearly shown on unit at extreme left, is also polished brass. When cap is removed and black activator button (third unit from left) is pressed down, a predetermined amount of cologne is released by metered valve. Container is said to hold enough cologne to deliver 800 sprays. Suppliers: Valve, VCA, Inc., Bridgeport, Conn.; bottles, Carr-Lowery, Baltimore; filling, PowrPak-ConnChem Inc., Bridgeport, Conn.



"Premium Poli-wax," new liquid automobile cleaner and polish, was introduced recently by Western Auto Supply Co. Kansas City, Mo. Formulated with a silicone base and carnauba wax, product is packed in one-pint oblong cans supplied by American Can Co. Container has gold, blue and red lithographed label. To be marketed nationally through Western's auto store outlets, product will retail for $2.00.

New package designed to stimulate self-service sales in paint, hardware and marine supply stores has just been introduced for its "Solox" denatured alcohol solvent by U. S. Industrial Chemicals Co., New York. Same red and blue colors which have identified the product since its introduction 25 years ago are now utilized in eye-catching "bulls-eye" pattern containing easy-to-read descriptions of product's many uses. Dripless, spill-proof closure used for past decade has been maintained on cans supplied by American and Crown. "Solox" is available in paint, quart and gallon cans.

Novel sample package containing seven and one-half ounces of "Tide" was put in hands of housewives in metropolitan New York area recently by Procter & Gamble Co., Cincinnati. Packages measuring 4⅝ x 6¼ x 1½ inches were distributed with envelope containing coupons that provide savings on purchases of "Tide," "Camay" soap and "Dash" low sudsing detergent.

First pressure packaged liquid multivitamin preparation is now being marketed by Abbott Laboratories, North Chicago, Ill. Development of a suitable valve (by Precision Valve Corp., Yonkers, N. Y.) and use of nitrogen as propellant made possible this packaging technique for "Vi-Daylin," a heavy viscous liquid previously available only in conventional packaging. Product is packaged in 12-ounce American can. Polyethylene cap by Redner Sons Co., Franklin Park, Ill.

New oven and outdoor grill cleaner of Tilette Cement Co., New York, is packaged in six-ounce polyethylene snap-cap bottle furnished by Royal Manufacturing Co., Prescott, Ariz. Product is said to be odorless and non-flammable. Bottle is white over-printed in red. Retails for $1.25.

"Pooch-Poo," new non-irritating shampoo for pets, was announced recently by Eastenn-Dukes Chemicals,Inc., Rogersville, Tenn. Product is marketed in five ounce bottles by Owens-Illinois Glass Co., Toledo, which also supplies the caps. Also packaged in gallon jugs, four to the case, for veterinarians.

more news about Ucon BRAND propellants ...coming your way soon

Here's what fillers and marketers of aerosol products will get with new UCON Propellants:

FIVE TOP-QUALITY GRADES, to meet aerosol product specifications for pressure, stability, safety, and dryness.

TECHNICALLY-TRAINED REPRESENTATIVES—who know aerosol markets—to help fillers and marketers choose the most efficient and profitable combinations of UCON Propellants for aerosol products. They will give practical advice and assistance on containers, valves, equipment . . . provide valuable technical and market data.

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ON-TIME DELIVERY of the quantity wanted, from a nation-wide network of distribution points.

GUARANTEED FULL WEIGHTS, because every CARBIDE tank car carrying UCON Propellants will be weighed individually, *at a standstill.* That means *full delivery* . . . and protection against money losses!

Years of Experience Back The High Quality of UCON Propellants

. . . and the technical assistance that will be available to you. CARBIDE has long been active in the fields of emulsion technology, surface-coating technology, silicones, solvents, and the manufacture and handling of gases . . . all associated with the aerosol industry. Thus, UCON Propellants are a logical extension of CARBIDE's research and development programs.

For more information on UCON Propellants—products of America's newest fluorocarbons plant—write: UCON Propellants, Union Carbide Chemicals Company, 30 East 42nd Street, New York 17, N. Y. Call, write or wire us, today! Attention: Dept. C-11

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Ucon BRAND propellants

UCON Propellants will be available in five grades

UCON Propellant 11 Trichloromonofluoromethane
UCON Propellant 12 Dichlorodifluoromethane
UCON Propellant 22 Monochlorodifluoromethane
UCON Propellant 113 Trichlorotrifluoroethane
UCON Propellant 114 Dichlorotetrafluoroethane

UNION CARBIDE CHEMICALS COMPANY *Division of Union Carbide Corporation*

NEW Trade Marks

THe following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12 (a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany each notice of opposition.

Dearsol — This for industrial cleaners of the emulsion and/or solvent type. Filed June 19, 1957 by Dearborn Chemical Co., Chicago. Claims use since Aug. 2, 1952.

IGA—This for all-purpose detergent for household use. Filed Jan. 16, 1958 by Independent Grocers' Alliance Distributing Co., Chicago. Claims use since Sept. 1, 1927.

Glad—This for bath and toilet soap bar. Filed Jan. 20, 1958 by Armour and Co., Chicago. Claims use since Dec. 11, 1957.

Acationox—This for nonionic detergent. Filed Mar. 3, 1958 by Biological Research, Inc., St. Louis. Claims use since Dec. 16, 1957.

Nailsolv—This for cleaning solutions for metal parts. Filed May 29, 1958 by Manpro Corp., Detroit. Claims use since Mar. 17, 1958.

Atlas—This for hand cleaner. Filed June 20, 1958 by Atlas Supply Co., Newark, N.J. Claims use since June 12, 1958.

Pooch-Poo—This for dog shampoo. Filed July 1, 1958 by Eastenn-Dukes Chemicals, Inc., Rogersville, Tenn. Claims use since Feb. 21, 1958.

Pipeline Powdr Plus—This for alkaline powdered detergent for dairy cleaning. Filed Dec. 19, 1957 by Lazarus Laboratories, Inc., division of West Chemical Products, Inc., Buffalo, N.Y. Claims use since Oct. 1957.

Black Gold—This for detergent for general washing and cleaning. Filed Jan. 10, 1958 by Morris, Sewall & Co., Houston, Tex. Claims use since Nov. 30, 1956.

Host—This for dry cleaning powder for rugs, carpets, and the like. Filed Jan. 27, 1958 by Racine Industrial Plant, Inc., Racine, Wis. Claims use since Mar. 21, 1955.

N-Zyme—This for powder for cleaning all drains, lines, grease traps, septic tanks, and cesspools. Filed Mar. 7, 1958 by Van Arsdale Laboratories, Inc., Minneapolis. Claims use since Aug. 21, 1957.

Tima—This for liquid concentrate all purpose cleaner. Filed Mar. 10, 1958 by Pyramid Chemical Co., Danville, Va. Claims use since Sept. 24, 1957.

Karal—This for detergent composition. Filed June 20, 1958 by Wyandotte Chemicals Corp., Wyandotte, Mich. Claims use since Jan. 15, 1958.

Rockwell's — This for deodorizing preparations, disinfectants, insecticides, rodenticides, herbicides, fumigants, and anti-freeze compounds. Filed May 24, 1956 by Rockwell Laboratories, Inc., Kansas City, Kans. Claims use since 1920 on insecticides.

Bugatrol —This for preparations to destroy insects in gardens and lawns. Filed June 26, 1957 by Doughten Seed Co., Jersey City, N. J. Claims use since Apr. 10, 1956.

Chase-mm — This for aerosol packaged insect repellent. Filed Aug. 23, 1957 by Chase Products Co., Broadview, Ill. Claims use since on or about Feb. 27, 1956.

Spray King—This for room deodorants. Filed Dec. 16, 1957 by Quality Chemical Products Co., Forest Park, Ill. Claims use since Dec. 20, 1956.

Simone Mounier—This for soap. Filed Sept. 9, 1957 by Charles of the Ritz, Inc., New York. Claims use since Aug. 7. 1957.

Kleer Blu—This for household cleaner. Filed Jan. 16, 1958 by Texize Chemicals, Inc., Greenville, S. C. Claims use since Dec. 17, 1957.

Home Beautiful—This for aerosol deodorant for use as a room freshener and sachet spray. Filed Jan. 13, 1958 by Revlon, Inc., New York. Claims use since Dec. 15, 1957.

Hy Tex—This for liquid laundry chemicals, namely, bleach, bluing, ammonia, and water softening compound. Filed Feb. 21, 1958 by Scientific Packaging Corp., Newark, N. J. Claims use since Feb. 22, 1957.

Fels—This for detergents for household use and soaps. Filed June 17, 1957 by Fels and Co., Philadelphia. Claims use since May 21, 1957 and since March 1894 in association with "Naphtha."

Pansan — This for household cleaner and detergent composition. Filed July 30, 1957 by Pennsalt Chemicals Corp., Philadelphia. Claims use since Apr. 17, 1952.

Formula No. 99—This for antiseptic hand soap composition. Filed Aug. 2, 1957 by Armour and Co., Chicago. Claims use since Nov. 30, 1956.

Nifty—This for liquid detergent for general household cleaning and laundry. Filed May 20, 1958 by Lever Brothers Co., New York. Claims use since May 12, 1958.

Mertone—This for soap. Filed June 10, 1958 by Merson Products Co., Jersey City, N. J. Claims use since January, 1948.

Isoval — This for insecticides and rodenticides in liquid and solid form. Filed Nov. 22, 1957 by Motomco, Inc., Clark, N. J. Claims use since Nov. 8, 1957.

Amburgo—This for rodent killer. Filed Dec. 9, 1957 by The Amburgo Co., Philadelphia. Claims use since September, 1954.

Sevin—This for 1-Naphthyl N-Methylcarbamate for use as an insecticide. Filed Dec. 31, 1957 by Union Carbide Corp., New York. Claims use since July 24, 1957.

Crag—This for insecticide. Filed Dec. 31, 1957 by Union Carbide Corp., New York. Claims use since July 24, 1957.

Sweet Heart—This for soap. Filed May 14, 1957 by Manhattan Soap Co., New York. Claims use since Mar. 26, 1957 and since 1903 as to "Sweetheart."

Clear-O-Dan — This for dandruff remover shampoo. Filed May 28, 1957 by Revlon, Inc., New York. Claims use since May 9, 1957.

Sudstowels—This for detergent scrub paper. Filed Aug. 22, 1957 by Howard L. Cook, Santa Barbara, Calif. Claims use since July 30, 1956.

Hetron—This for neutral detergent for use on terrazzo, tile, marble, slate, and cement floors and a general purpose cleaner. Filed Sept. 27, 1957 by Hetron Chemical Co., Charlotte, N. C. Claims use since Mar. 1, 1957.

Go-Clean — This for hand cleansing cream. Filed Dec. 12, 1957 by Raymond Groden, Baldwin, N. Y. Claims use since Mar. 25, 1957.

Dean's Magic—This for household detergents. Filed Jan. 29, 1958 by M. B. Edwards Company, Inc., doing business as M. B. Edwards Co., Inc., Philadelphia. Claims use since on or about Jan. 6, 1958.

Sweater Girl—This for detergents. Filed Feb. 13, 1958 by Gateway Chemicals, Inc., Chicago. Claims use since Oct. 7, 1957.

Namisyn Flosuds—This for industrial soaps and detergents. Filed Feb. 17, 1958 by National Milling & Chemical Co., Philadelphia. Claims use since July 23, 1956.

Elimstaph — This for liquid germicidal cleaner. Filed May 21, 1958 by Walter G. Legge Co., New York. Claims use since Apr. 14, 1958.

— ★ —

Removable Plastic Coating

A line of removable plastic coatings for temporary protection of highly finished surfaces which may become damaged during fabrication, handling, and shipping, is available from Guard Coatings Corp., 8-05 43rd Ave., Long Island City 1, N.Y.

In liquid plastic solution form, the product can be applied by conventional coating techniques and forms a tough abrasion-resistant film when dry. Two general classes of coatings are available: fast drying solvent solutions and plastic water dispersions. Coatings are removed by either peeling by hand, dissolving, or by wetting with water, depending upon which of the products is used.

The specific product to be used depends upon the degree and type of protection required, the surface to be protected, and the manufacturing operations to which the protected surface is subjected.

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Pressure packaging is pushing many different kinds of products to the top in today's tougher sales race . . . with the help of Crown. Crown made the first aerosol package . . . has produced more than any other manufacturer . . . is the only source of both seamless and fabricated aerosol containers. Crown research, experience and facilities are unexcelled in the aerosol packaging field. Let us show you how to put your product under pressure . . . profitably.

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PRESSURE PACKAGING

More Aerosol Supermarket Samples Sought

THERE is still time to send in aerosol products to be displayed in the aerosol supermarket planned for the 45th annual meeting of the Chemical Specialties Manufacturers Assn. at the Hotel Commodore, New York, Dec. 8-10. To make sure shelves of the supermarket are amply stocked, two letters, one to all known marketers of aerosols, the other to contract loaders, were sent out last month urging both groups to send in as many aerosol products as possible.

The supermarket is being set up to mark the tenth anniversary of the establishment of the Aerosol Division of C.S.M.A. The idea was suggested by Joseph J. Tomlinson of General Chemical Division, Allied Chemical Corp., New York, chairman of the Aerosol Division's tenth anniversary subcommittee. He is handling all arrangements for the supermarket.

The "grand opening" of the supermarket will feature a press conference on Monday, Dec. 8. Editors and representatives from many consumer, shelter, marketing and trade magazines, newspapers, news syndicates and radio and television are being invited to view the supermarket and be briefed on the latest developments in aerosols. It is also expected that executives of drug, food and hardware chains headquartered in New York and Philadelphia will visit the supermarket.

Set up in the West Ballroom of the Hotel Commodore, the aerosol supermarket will be equipped with eight, 12 foot "gondolas", a revolving display, checkout counters, shopping carts, streamers and merchandising aids of manufacturers. A wide range of aerosol products, numbering in excess of a thousand, is expected to be displayed. Following the press conference, the supermarket will be open to all those attending the C.S.M.A. meeting.

The subcommittee is asking that marketers and/or fillers send two dozen products or equivalent in standard shipping units for display in the supermarket. The subcommittee asked that four dozen samples be sent in if the manufacturer wants his products "sampled" in the shopping bag of aerosols to be given to each editor.

Sample products are to be sent to Franklin Letter Service, 134 Spring St., New York 12, N. Y. Forms listing name and quantity of product submitted are being mailed out by C.S.M.A., from which additional forms may be obtained.

—★—

Carbide Names Dobbelaer

The appointment of H. Robert Dobbelaer as office manager for "Ucon" fluorocarbons operations of Union Carbide Chemicals Co., Division of Union Carbide Corp., New York, was announced early in September. The appointment is another step in the company's organization for marketing of aerosol propellants and refrigerants under the "Ucon" name. The Carbide fluorocarbons will be produced at a new unit at Institute, W.Va., which is designed to turn out 50 million pounds a year. The plant is scheduled to go on stream this fall.

H. Robert Dobbelaer

Mr. Dobbelaer joined Union Carbide in 1940. Since then he has worked with the company's special products division in various administrative and technical capacities, with time out for service with the Army Air Corps during World War II. He holds a B.S. degree in chemistry from Fairleigh Dickinson University.

—★—

Aerosol Contest Judges

The names of the judges for the 1958 C.S.M.A. aerosol package competition were announced Oct. 22 at a meeting of the publicity committe of the Aerosol Division of the Chemical Specialties Manufacturers Assn. at the Chemists' Club, New York. The judges who will select the "best aerosol packages of the year" in 11 product categories and a "best of show" award are: Benjamin W. Lerner, vice-president, Sun Ray Co., Philadelphia drug chain; Irving Feldman, president of Zelart Drug Co., Westbury, L. I., N. Y., retail jobber; Francis E. Blod, head of his own New York design firm; Miss Tedi Thurman, "Miss Monitor" of National Broadcasting Co., New York; Mrs. Dee Culmore Lincoln, Stony Brook, L. I., N. Y., housewife; Miss Dorothy Cassidy, managing editor, *Bride & Home* magazine, New York; and Preston James Bell, publisher of Variety Store Merchandiser Publications, New York.

The judging in the Aerosol Awards Contest, sponsored annually by the Aerosol Division of C.S.M.A., will take place at the Chemists' Club, New York, Nov. 19. Announcement of the winning products will be made at the group luncheon on Tuesday, Dec. 9, during the 45th annual meeting of C.S.M.A. at the Hotel Commodore.

New York. Representatives of firms having winning entries will be guests at the luncheon and will be presented with plaques. Following the ceremonies the award winning products will be placed on display with other entries in the competition for the duration of the meeting.

Frederick G. Lodes, Lodes Aerosol Consultants, Inc., New York, chairman of the Aerosol Publicity Committee will present the awards at the luncheon.

—★—

New Aerosol Valve

A new, non-metallic aerosol tilt valve has been designed by Aerated Container Corp., Chicago. Features of the valve include uniform pre-loading, quick acting shut-off, a leakproof seal, and easily controlled product flow. A tamper proof cap is available in a variety

of colors. Both plain or decorator valve types are available.

—★—

Krylon Sales Meeting

The first national sales meeting of Krylon, Inc., Norristown, Pa., was held in that city during September. Previously, regional meetings were held each year in New York, Chicago, and San Francisco.

More than 200 members of Krylon's sales organization and their wives attended the meeting which featured a tour of the company's new loading plant, addresses by company officials, a review of quality control methods, and a demonstration of the proper way to use an aerosol dispenser to assure excellent results.

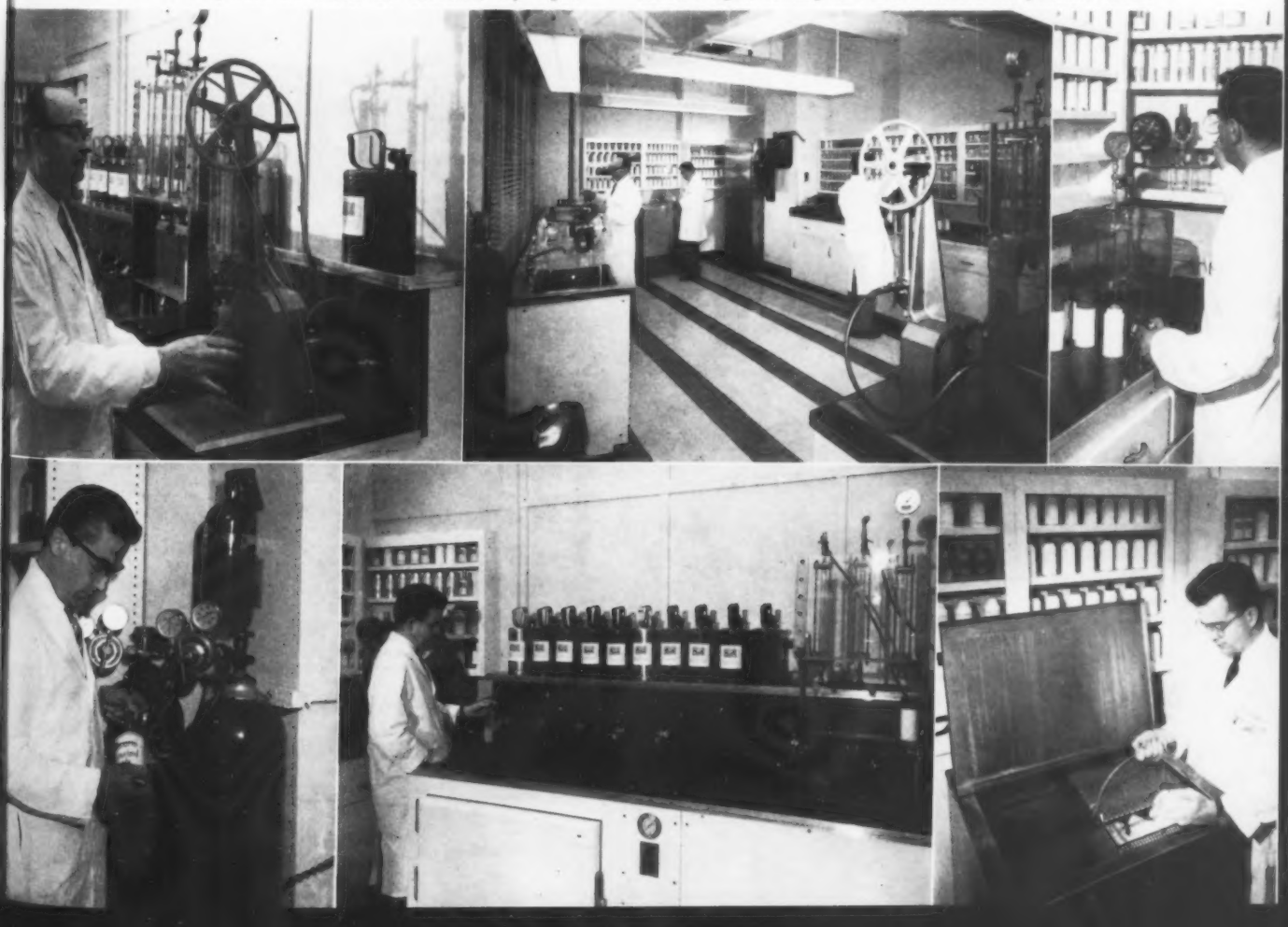
—★—

ATI President Elected

H. R. Shepherd, president of Aerosol Techniques, Inc., Bridgeport, Conn., contract pressure packager, was elected a director last month of Midland Aerosols, Ltd., Wolverhampton, England, it was announced by F. Philip Webster, managing director of the British company. Midland, a leading aerosol company in Europe, produces and packages pressurized specialties for marketers in the British Isles and on the continent.

Mr. Shepherd was instru-

JUST FOR AEROSOLS . . . New headquarters of Givaudan-Delawanna, Inc., New York, feature spacious aercsol laboratory fully equipped with latest devices and materials for making and testing pressure packaged products. Here, in completely air-conditioned, slightly pressurized laboratory, the firm tests a wide range of products using its perfuming materials and flavors. In top left photo perfumer-chemist charges a glass aerosol. Next photo is portion of lab seen from door leading into it. Victor Di Giacomo, top right, director of the firm's research facilities in New York, studies aerosol food products using Givaudan flavors. Perfumer-chemist, bottom left, preparing a pressurize aerosol container, check gauge connected to nitrogen cylinder. All types and makes of propellants are used here. Next photo shows perfumer-chemist siphoning off a liquefied propellant for experimental aercsol. Each spigot represents a different propellant or mixture of propellants. In hot water bath, at extreme right, seating of valve is tested for possible leaks.



mental in the establishment of Midland five years ago and has maintained his close interest in the organization. A leading figure in the aerosol industry, he is editor of the forthcoming "Aerosol Encyclopedia," a compendium of the industry, and served for two terms as chairman of the aerosol division of the Chemical Specialties Manufacturers Association, New York.

Mr. Shepherd founded ATI three years ago. Earlier he had been vice-president of Connecticut Chemical Research Corp., Bridgeport contract aerosol loader.

—★—

VCA Specifications Form

A specifications form has been issued by Valve Corporation of America, 1722 Fairfield Ave., Bridgeport, Conn., containing technical data on its three basic aerosol valves.

Component materials and discharge amounts are listed for the firm's "B-9", "B-8", and "B-18" valves. The "B-9" is for use on any container with a standard one inch opening, the "B-8" is for glass bottles, and the "B-18" is a metered valve for use on either. Forms are available from the company.

—★—

Carter Plant Underway

Steelwork construction began last month on the first unit of a $3,500,000 plant being built in Cranbury, N. J., for Carter Products, Inc., New York.

The 250,000 square foot, one-story structure is located on a 150 acre tract and is scheduled for completion in summer, 1959. It will contain manufacturing, shipping, and warehousing facilities for Carter toiletry and proprietary products as well as those of its pharmaceutical division.

Engineers and constructors are Wigton-Abbott Corp., Plainfield, N. J.

—★—

Mojonnier Firms Purchased

Mojonnier Associates, Inc., and the Mojonnier-Dawson Co., both of Franklin Park, Ill., have been purchased by the Kartridge-Pak Machine Co., Chicago, wholly owned subsidiary of Oscar Mayer & Co., Madison, Wis., it was announced last month by Harold M. Mayer, Kartridge-Pak president.

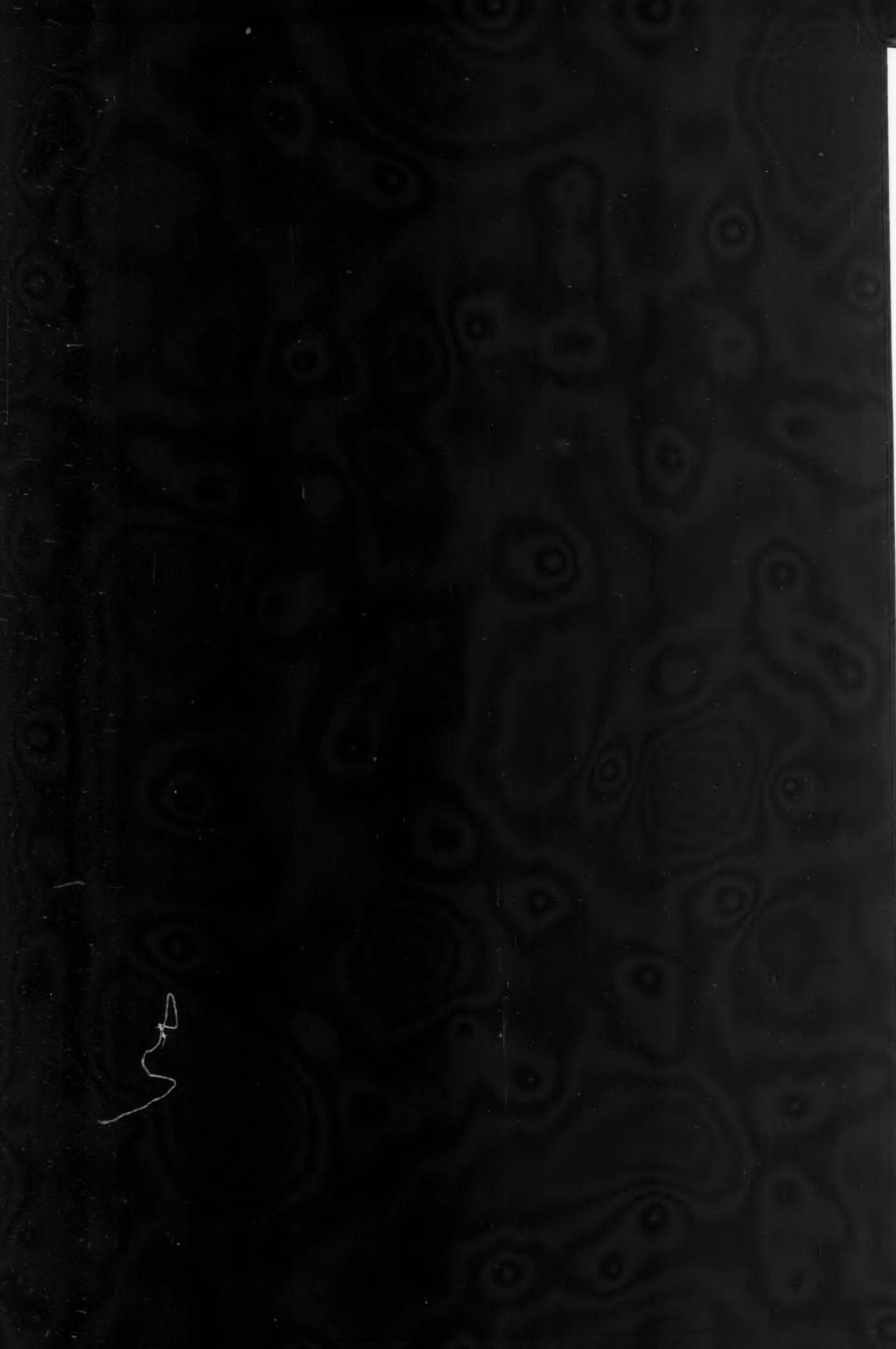
George W. Heath

Albert B. Mojonnier

Under the terms of the purchase which involved the assets of both Mojonnier firms, the two companies will be consolidated into the Mojonnier Associates division of Katridge-Pak. Mojonnier offices and plant at 9151 Fullerton Ave., in Franklin Park are being retained.

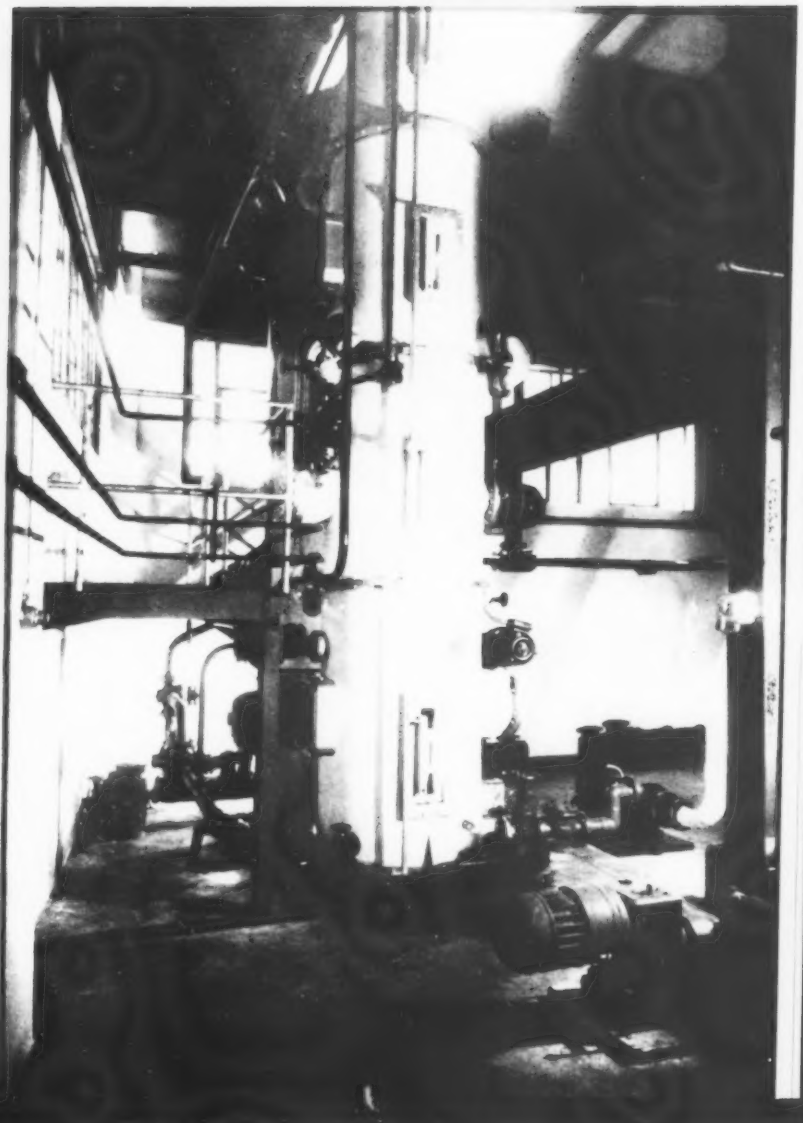
Albert B. Mojonnier, president and founder of the two organizations, continues as a member of the management group of the new division.

George W. Heath, who has been with Oscar Mayer & Co. for 12 years, has been named general manager of the division.



Production...

EQUIPMENT · MATERIALS · PROCESSING



Typical soap plant installation showing four lower sections of Monsavon washing tower. Each of six separate sections has cylindrical mixing compartment and soap/lye settling space. See article on the Monsavon process beginning on page 129.

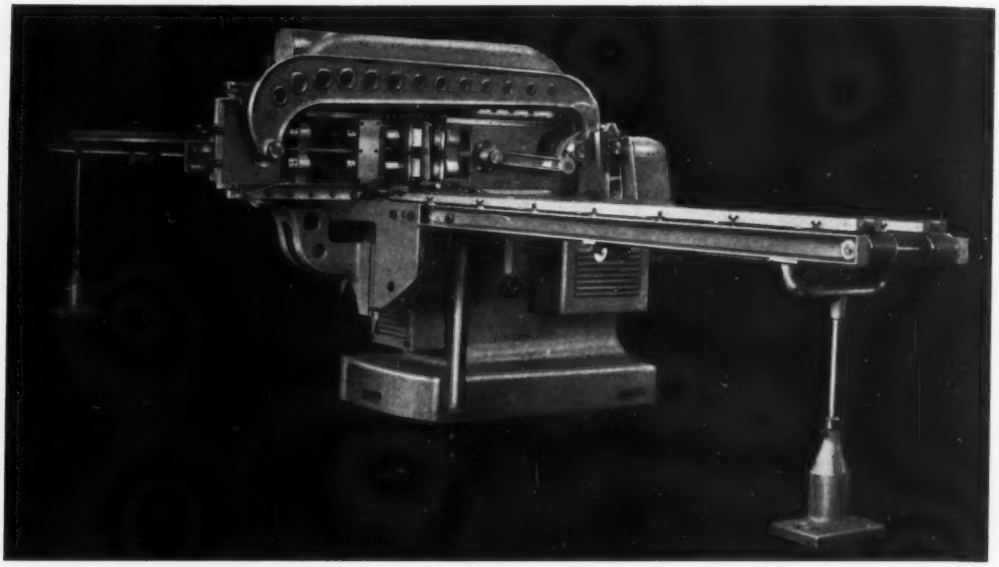
MECCANICHE MODERNE

Corso Sempione, 51 — BUSTO ARSIZIO (Italy)

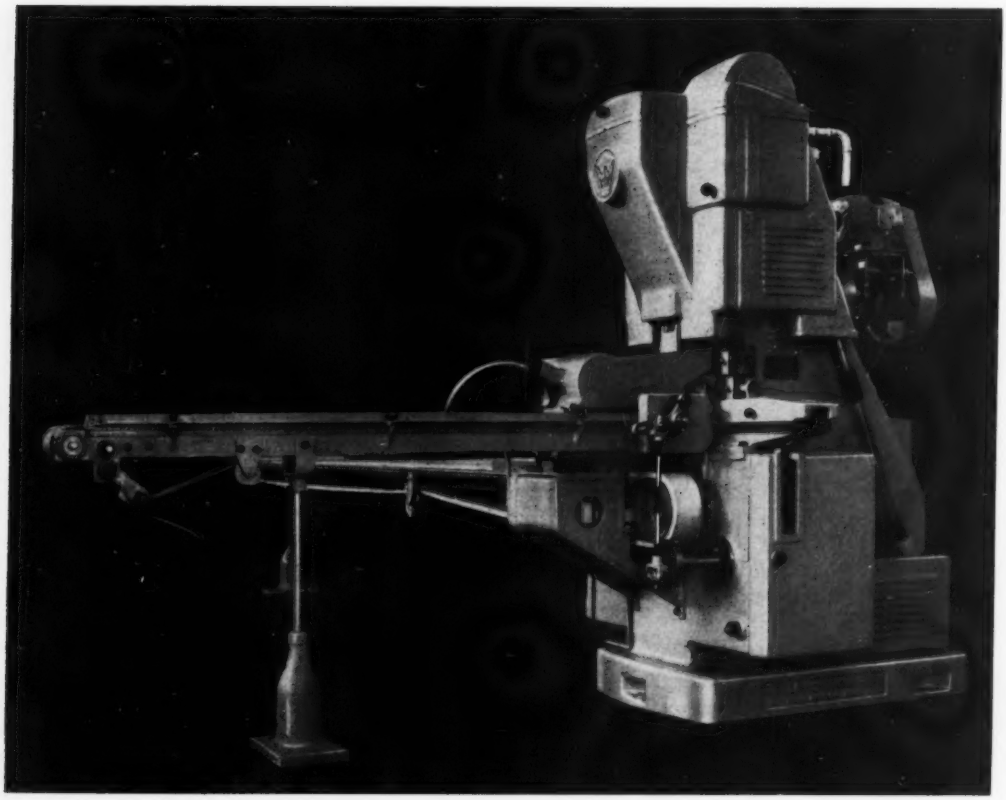
Type SAIN/1620/B2

with double die for toilet and laundry soap cakes of any size.

- Stamping speeds up to 250 cakes per minute.



- This machine is constructed with charging and discharging belts set in a straight line or in right angle position and in both cases with possibility of both right and left hand discharge.
- We also manufacture the **Type SAIN/1620/B** with single die having applications same as **Type SAIN/1620/B2** and stamping speeds from 120 up to 140 cakes per minute.
- We manufacture other types of automatic stamping machines for laundry soap cakes pressed on four or six faces.
- Any type die constructed in bronze or stainless steel.



Type SAEV/3066

for oval, spheric and semi-spheric toilet soap cakes etc. without edge.

- Stamping speeds up to 100 cakes per minute.

WRITE US YOUR REQUIREMENTS

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Monsavon Plant and Process

By E. T. Webb

London, England

Part II

THE tower incorporated in the Monsavon toilet soap plant far surpasses the open kettle process in washing efficiency. Controlled tests reveal that over 90 per cent of the iron present in soap and wash liquor entering the tower is removed in the spent lyes. This percentage is a tremendous improvement over washing results obtained in soap kettles. Furthermore, the actual amount of iron present in the soap mass made by the Monsavon process is considerably less than that present in the kettle made batch. This means that not only the rate of removal is better but that fewer impurities have to be removed, which adds up to a product of superior color and odor characteristics.

The following factors may be assumed to contribute to the improvement in soap quality: (a) elimination of injected steam; (b) mixing and settling temperature below 100°C; (c) practically instantaneous separation of soap and lye; (d) rapidity of processing with reduced risk of metallic contamination.

(a) Injected steam may well be the most impure raw material used in soap making. The possibility cannot be ignored of boiler water primings being entrained in the steam flow and of added contamination as the steam sweeps through rusty pipe lines from the boiler to the kettle. Any such impurities entering the kettle with the steam are trapped and retained in the soap and lye, and remain in contact with both for many hours. Deterioration in the color and possibly in some other characteristics of the soap will result. Copper salts introduced by this route may increase the risk of incipient rancidity.

Monsavon-made nigres are lemon yellow even when derived from fats of average color, whereas kettle-made nigres from a comparable fat charge turn out dark brown or worse. In addition to color, steam may impair the odor of the final product. It has a very definite odor of its own much of which is absorbed by the soap.

In the author's opinion, elimination of the use of open steam contributes more than any other single factor to the improved color and odor characteristics of soap made by the Monsavon process.

Thermal Conditions

(b) Mixing and settling in the Monsavon plant are carried out at temperatures close to 194°F., a fact which may influence considerably the rate at which the lye settles from the soap, which in turn can affect washing efficiency. Entrained lyes and nigre settle more rapidly from a mass kept at temperatures below 212°F. than at more elevated temperatures.

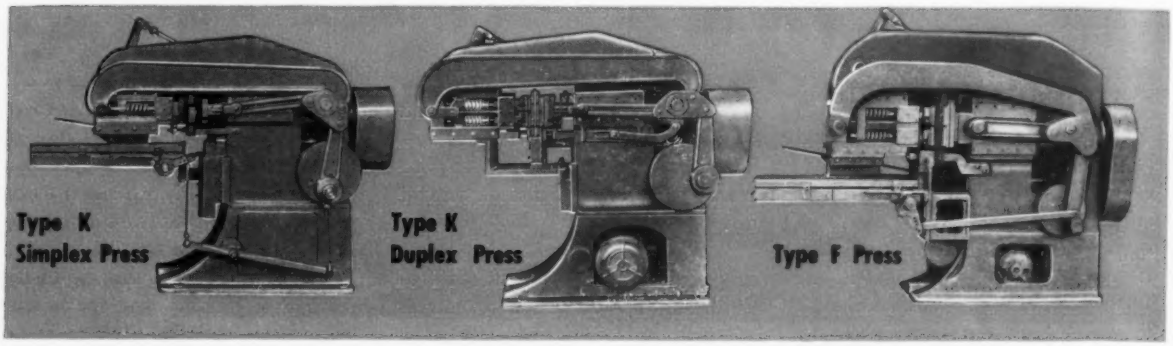
What are the thermal conditions in a conventional soap kettle when the injected steam is shut off at the end of a graining operation or fit? The temperature of the soap or soap and lye mixture at the top of the vessel will be about 212°F. However, the kettle may be 15 feet deep and the soap and lye or soap mass at the bottom must be as hot as 236°F. in the case of a fitting operation. At intermediate levels temperatures will range between 212 and 236°F., depending on location. When the hot soap rises foot by foot in the kettle it releases some vapor and loses heat. This disturbs the mass in the vessel and delays the settling process.

In contrast to the open kettle, the Monsavon plant offers ideal settling conditions. Temperature of the entire mass throughout the plant is uniform and well below 212°F. In addition, each section operates under pressure which assures that no vaporization takes place. Pressure in the sections varies according to level, ranging from three psi in the top section to about 18 psi in the bottom section. The total height of the tower is slightly more than 30 feet. Temperature adjusted to the pressure in the top section is about 221°F. and in the bottom section about 255°F.

Continuous washing and fitting of toilet soap in Monsavon plant improves quality and economy

JONES Automatic Soap Presses

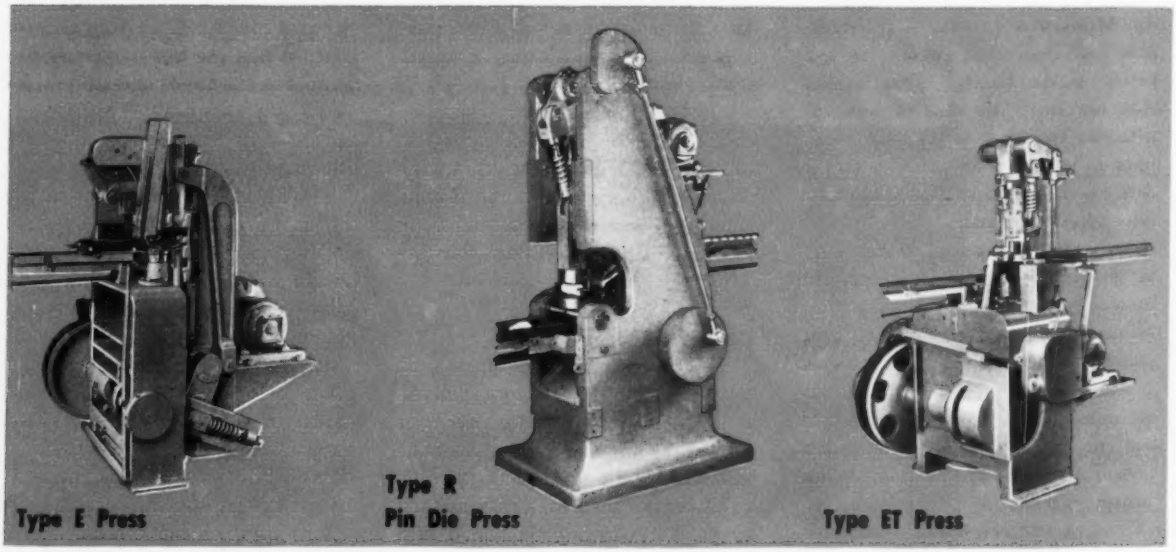
JONES PRESSES, with their exclusive, patented *toggle motion,* have become the standard throughout the world wherever high production, high quality, and perfection of finish are paramount considerations. Standard Jones Presses illustrated here meet all soap pressing requirements. A Jones Toggle Operated Soap Press will improve the appearance of your product, increase your production, reduce your costs. Write today for complete information.



For toilet or laundry soap cakes of any shape (except highly convex cakes) with side band. Speeds of 120-140 cakes per minute.

Applications same as Type K Simplex. Presses two cakes simultaneously. Speeds up to 250 cakes per minute.

For large toilet or laundry soap cakes. Available in Simplex or Duplex Models, pressing one or two cakes per stroke.



For small toilet soap cakes (1½ oz. or less). Speeds up to 200 cakes per minute.

For toilet soap cakes of unusual shape, oval cakes, or cakes having highly convex faces, with or without side band. Speeds up to 100 cakes per minute.

For small toilet soap cakes with side band. Speeds up to 120 cakes per minute.

R. A. JONES & CO., INC.

P. O. BOX 485,
CINCINNATI, OHIO

Cartoners — Case Packers — Soap Presses

Actual processing temperature throughout is 194°F. Therefore, the difference between adjusted and actual temperatures in the top section is 221°−194°=27° and in the bottom section 255°−194°= 61°; in other sections differences range between these limits. As this difference increases so does the settling rate. Thus, the lye in the bottom section settles most rapidly and settling speed diminishes in the higher sections of the tower. These conditions favor quiescent settling which in turn makes for good washing results.

Rapid Settling

(c) Rapid settling is accomplished by placing the horizontal mixer in each section just slightly above the soap/lye interface level. Soap and lye continuously enter the mixing chamber and the mixture passes continuously from the cylinder into the settling space through four or five outlet pipes proportioned to reduce flow velocity and to minimize disturbance of the settling mass. The most important factor, however, is the point at which the mixture enters the settling space, namely very close to the interfacial level. This results in almost instantaneous separation.

In a conventional kettle boiling operation the steam is shut off after graining is completed. At this point the soap/lye ratio is fairly uniform throughout the vessel. Settling is therefore bound to be a countercurrent process, with some soap travelling many feet to join the soap layer forming on the top and lye dropping down to reach the bulk of the settled lye at the bottom. This type of settling operation requires time and may not be too efficient in the end. Furthermore, the slowly rising soap may trap and reabsorb some of the impurities which had previously passed from the soap into the lye. Elimination of countercurrent settling may well be a significant factor in the improved quality of soap made by the Monsavon process.

(d) Soap can be efficiently washed in the Monsavon tower in about two hours. This compares with about 60 hours residence in the soap kettle. The cut in contact time surely must greatly reduce the risk of metallic contamination of both soap and lye.

Whether the above factors form a complete explanation for the improved odor, color, and stability of soap made by the Monsavon process is a moot question. The improvement is even more remarkable when one recalls that the separated nigres are continuously recycled to the tower and that the nigre is returned to the last wash in the tower. In other words, the nigre has only one wash before it reenters the stream of washed soap destined for the "fitting" operation and the settling tank.

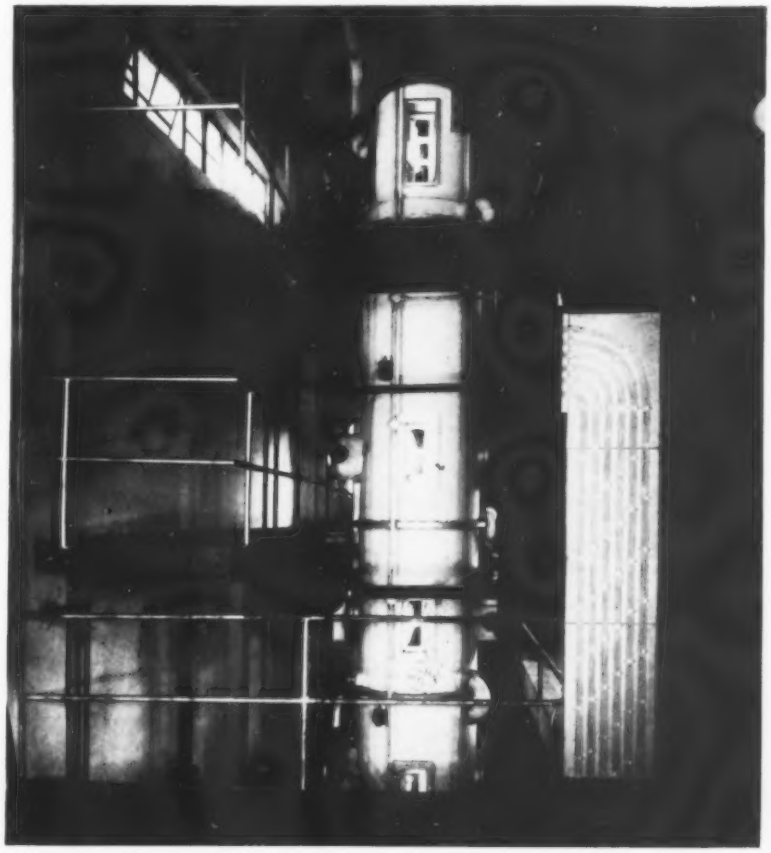
All soap makers know the disastrous effect on color resulting from boiling soap on a nigre. In fact, an immediate outlet for nigres as they are produced is a prerequisite for uniform color in kettle boiled soap.

In the Monsavon plant nigre can be recycled for months without any deterioration in soap color. The efficiency of washing (a to d) may largely account for this. A contributory factor may be the Monsavon method of continuous "fitting."

Continuous Fitting

The washed soap rises from the last washing section in a continuous stream into the fitting section at the top of the tower. Here it is continuously mixed with water and sufficient quantities of brine or caustic soda to accomplish fitting. Samples of the fitted soap can be withdrawn for trowel or other tests. The fitted soap is continuously withdrawn and conveyed to the settling tank. This tank should have a capacity of at least

Upper half of Monsavon continuous toilet soap washing tower showing the last three mixing and settling sections topped by the continuous fitting section.



30 tons to allow a minimum settling time of 15 hours if the plant is worked at a rate of two tons of soap per hour.

The soap enters the settling vessel at a point about three or four inches above the bottom through apertures large enough to minimize the entering velocity sufficiently to avoid disturbance of the settling process. When the soap level has reached the top of the tank good neat soap can be withdrawn. At the same time, the settled nigre at the bottom of the tank is ready for withdrawal and return to the top section of the tower. In other words, once the tank is full, three different continuous movements are in progress: the fitted soap is introduced into the tank; nigre is withdrawn at a controlled rate and neat soap is drawn off the top of the vessel.

Although the plant allows 15 hours for settling, this step can actually be accomplished very rapidly, because the temperature of the mass never reaches vaporization point and because the fitted soap enters the settling mass at a point close to the interfacial level.

Unlike the open kettle method, the Monsavon tank requires only a few inches of countercurrent settling. When the tank is fully charged the settling speed is highest. This acceleration is due to the pressure prevailing at the point of entry. This pressure increases with the depth of soap layer above the inlet. Actually the settling speed could be greatly stepped up by pressurizing the tank above the soap level at 25 to 50 psi.

Recycling of the nigre takes only about 30 minutes from the time it leaves the settling tank, passes through the top section of the tower and is returned to the nigre in the tank. Yet its color remains close to pale yellow and varies little, certainly not enough to affect the color of the final product over a prolonged run.

Certain problems may arise if the continuous settling method is not used in conjunction with the Monsavon tower. The washed soap leaving the last section of the tower and prior to entering the fitting section may have a 53 to 54 per cent fatty acid content. Steam fitting of such soap presents difficulties owing to its low concentration. It may be necessary to drop some lye, which would be mighty weak lye, prior to attempting the fit.

In the continuous settling process, the fatty acid concentration of the soap is of little importance—it could be almost as low as 50 per cent—because the nigre is continuously recycled. The only exra cost involved would be the pumping of a larger volume of nigre.

The Monsavon plant, including continuous saponification, washing, and fitting, consumes about 200 pounds of steam and 25 kwh per ton of soap. Kettle saponification, washing, and fitting requires about 280 pounds of steam and 15 kwh per ton. This comparison makes the Monsavon method attractive from the point of view of fuel economy.

Summary

1. The continuous saponification unit, while attractive for production of one type of soap, is not so interesting where many and varied soap types are handled.

2. The washing tower is a highly efficient unit. It yields soap of improved quality without production of nigres and it enables a reasonably high glycerine recovery to be achieved with an unusually low spent lye/fat ratio.

3. The continuous fitting operation works efficiently, particularly with the Monsavon washing tower.

4. The plant effects important savings in fuel and space. Owing to the rapid rate of throughput it cuts the volume of raw materials locked up in process per ton of finished soap.

New Drum Cradles, Racks

Pucel Enterprises, Inc., 3746 Kelley Avenue, Cleveland 14, recently introduced "Grizzly" drum cradles and racks. The cradles feature all welded tubular frames, channel braces and rounded edges. They come assembled with or without casters and drum rollers. All models are 30 inches long and 18½ inches wide, with heights of 19, 25, 26½ and 27½ inches to take 55 and 30 gallon drums as well as smaller ones. Shipping weight of these units is 30 to 40 pounds. Special cradles can be engineered.

The "Grizzly" drum storage racks come in two models to hold either four or six drums. The smaller model is 60 inches wide, 36 inches deep, and 46 inches high; the larger unit measures 84 x 36 x 46 inches.

These racks are self-standing units, do not require anchoring to the floor, can be moved with fork trucks, fully loaded. Drain height from floor to spigot in the bottom row is 18 inches, in the top row 48 inches.

STATEMENT OF OWNERSHIP

Statement required by the Act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 232) showing the ownership, management, and circulation of Soap & Chemical Specialties, published monthly at New York, N. Y. for October 1, 1958.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mac Nair-Dorland Co., Inc., 254 West 31st St., New York, 1, N. Y.; Editor, Frank J. Reilly, 254 West 31st St., New York 1, N. Y.; Business Manager, Ira P. MacNair, 254 West 31st St., New York 1, N. Y.

2. The owner is . (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Mac Nair-Dorland Co., Inc., 254 West 31st St., New York 1, N. Y.; Ira P. MacNair, 254 West 31st St., New York 1, N. Y.; Grant A. Dorland, Ocala, Florida.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

signed IRA P. MAC NAIR, Business Manager

Sworn to and subscribed before me this 1st day of October, 1958.

(Seal) ANGELOS G. CHAOUSH

(My commission expires March 30, 1960.)

Versatile Surfactant

A new anionic alkanolamine salt of alkyl aryl sulfonate was introduced recently by Emulsol Chemical Corp., 75 East Wacker Drive, Chicago 1. "Emcol P10-49" is said to combine ready water solubility with compatibility with alkaline and acid detergent builders. Suggested for a wide range of formulations, including use in liquid dishwashing compounds, shampoos, whitewall tire cleaners, and a number of industrial detergents and cleaning compounds, the surfactant is said to yield end products with minimum hazing and clouding tendencies.

Formulations and other pertinent information are available from Emulsol in Technical Bulletin 54.

—★—

Premier Mill Expands

By adding a production unit in Reading, Pa., and with the investment of new funds in the corporation, Premier Mill Corp., Auburn, N. Y., has announced the availability of its colloid mills and "Dispersators," as well as its engineering and research services. The addition of the Reading unit brings the company's total manufacturing space to 60,000 square feet.

Premier is also reported to be developing a laboratory "Dispersator" and plans to expand its sales and research facilities.

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Silicate "Color Coding"

Dry silicate products of Philadelphia Quartz Co., Philadelphia, are now being "color coded" for easy identity, the company announced last month. The products are packaged in newly designed printed multi-wall kraft paper bags.

Identical designs with a yellow band are printed on all bags with a secondary color band differentiating the products. Yellow is contrasted with green bands and lettering for example, to identify the company's "Metso Granular." Red in the design is for "Metso Anhydrous," black is for "Metso Anhydrous 60," and blue is for "Metso 99."

—★—

FMC Bulletin Offered

A four-page illustrated folder, bulletin P-809, is available from the Stokes & Smith plant of the FMC packaging machinery division, Food Machinery and Chemical Corp., 4900 Summerdale Ave., Philadelphia 24, describing its complete line of equipment.

Included in the illustrated bulletin are the eight product lines manufactured and sold by the firm with specifications and descriptions of each. Fillers, carton filling and sealing machines, casers, and wrapping machines are among the items listed. The bulletin is available upon request.

—★—

Kohnstamm & Co. Moves

H. Kohnstamm & Co., Inc., manufacturing chemists, has moved from 83-93 Park Pl., New York, to 161 Avenue of the Americas, New York 13.

Hygiene Safety Data

Hazards and control of 62 important and ubiquitous industrial chemicals are covered in as many leaflets available from the American Industrial Hygiene Association, 14125 Prevost, Detroit 27. *Hygienic Guides* cost 25 cents each (one subject to a sheet) and less in quantity.

Information given includes maximum allowable concentrations for both long and short term exposures, important chemical and physical properties, engineering and medical control procedures and other pertinent information as well as literature references.

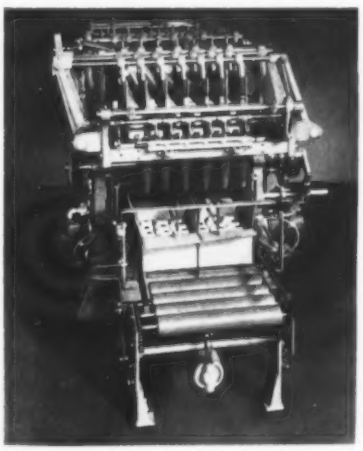
—★—

Automatic Casing Machine

A machine designed specifically for automatic casing of empty aerosol containers is available from Standard-Knapp division of Emhart Manufacturing Co., Portland, Conn., it was announced last month.

Handling two cases at a time, the packer moves seven or 12-ounce containers through the line at 240 cans per minute in a 3 x 4 x 1 pattern. Change-over of grid and pusher plates to handle either can size takes 15 minutes, the maker says.

The containers are lowered into the cases, a method which is said to prevent chipping or scratching of the can finish.



—★—

New Bag Closer

A new belt conveyor sewing unit called the "Fischbein Bag Closer" has been introduced by Dave Fischbein Co., Minneapolis. Designated as model B-5, the unit operates from an ordinary electrical outlet without special wiring. Operated by a two-stage switch controlled by the operator's foot, the machine stitches at the rate of 30 feet per minute.

The 12-inch wide conveyor belt is five feet long but other sizes are available. Complete specifications and prices are available from the company, 2720 30th Ave. South, Minneapolis, Minn.

—★—

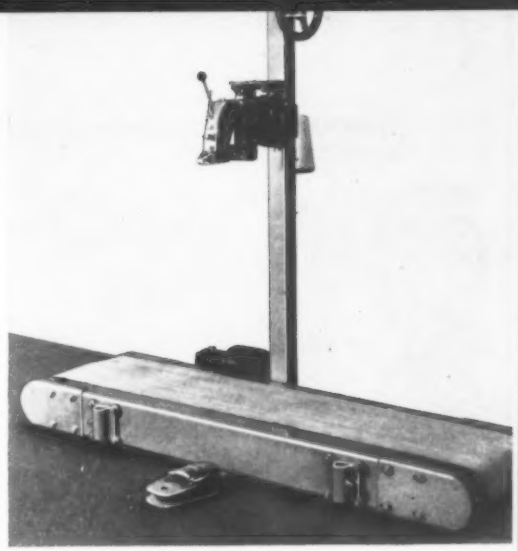
Rating Floor Wax Safety

"There are presently no standards of floor safety that can be expressed in terms of accident frequency, coefficient of friction, or subjective foot tests in the field." Laboratory machines yielding friction measurements are of value to the wax formulator for screening of new formulations of known composition.

This is the gist of a report prepared by a subcommittee of Committee-21 on Wax Polishes and Related Materials of the American Society for Testing Materials. Based on work performed by a task group including B. S. Johnson, C. S. Kimball, J. V. Steinle, C. L. Weirich, and F. J. Wolter, the report is entitled: "Evaluating the Slip Resistance of Floor Waxes, The Significance of Friction Measurements."

Measurement of the coefficient of friction by the James and the Sigler machine is described and discussed. Both methods are termed as being of "a low order of precision." Difficulties of correlating laboratory measurements with field conditions are attributed to the vast number of contributing factors and their variability.

A minimum coefficient of friction set for acceptability of floor waxes does make some rough separation of waxes at a marginal level.

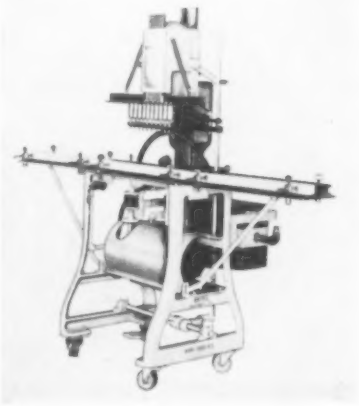


Fischbein Model B-5 Bag Closer

—★—

New Ertel Filler

A new vacuum filler has been introduced by Ertel Engineering Corp., Kingston 6, N.Y. Available in three combinations, the new ESMA vacuum filler has six open type spouts, vacuum pump and ⅓ HP motor. The different combinations of the unit are (1) completely automatc overflow system and reservoir tank, (2) completely automatic overflow system, but no reservoir tank and (3) overflow arrangement used on portable fillers. Ertel also makes a line of filtering units, portable mixers, hand cappers and portable and semi-automatic vacuum bottle fillers.



NEW Patents

The data listed below is only a brief review of recent patents pertinent to the readers and subscribers of this publication. Complete copies may be obtained by writing to the publisher of this magazine:—MacNair-Dorland Co., 254 W. 31st Street, New York 1, N. Y., and remitting 50c for each copy desired. For orders received from outside of the United States the cost will be $1.00 per copy.

No. 2,852,168. Dispensing Valve Assembly, patented by Fred F. Suellentrop, Mehlville, Mo. This patent claims in a stem actuatable valve assembly mounted in the upstanding flange surrounded central opening of the top closure member for a pressurized container of the self-dispensing type. a grommet molded of resilient rubber material comprising: a lower main body having a flat bottom face and an upwardly and outwardly flared external periphery; a circular flange having a dished upper face extending laterally from the upper end portion of the main body; an upper sleeve segment having a flat top face and a partly cylindrical and partly downwardly and outwardly flared external periphery; a neck segment connecting said main body and said sleeve segment; an annular recess defined externally in the neck segment by the bottom edge of the flared portion of the sleeve segment and the dished upper face of said circular flange; a frusto-conical inner peripheral surface formed centrally in the main body merging at its upper end into a cylindrical inner peripheral surface provided in the neck segment, and at its lower end into the flat bottom face aforesaid of the main body; a lower cylindrical inner peripheral surface merging into a slightly inwardly tapered inner peripheral surface thereabove in the sleeve segment; and an annular internal ledge formed by the juncture of the cylindrical inner peripheral surface aforesaid in the neck segment and the lower cylindrical inner peripheral surface aforesaid in the sleeve segment.

No. 2,853,423. Aerosol Sun-Screening Composition, patented by Anthony L. La Via, Brooklyn, N. Y., assignor to Mathieson Chemical Corp., New York. An aerosol composition is covered consisting essentially of: a sun-screening agent; a propellant; and a water-repellant, film-forming liquid ester vehicle of high flash point, said ester having an acid moiety selected from the group consisting of higher alkanoic acids, higher alkenoic acids and higher alkanedioic acids, said acids having not more than 18 carbon atoms, and an alcohol moiety selected from the group consisting of saturated, unsubstituted lower aliphatic monohydric alcohols, lower alkylene glycols of low molecular weight, sorbitol and mannitol.

No. 2,852,347. Apparatus for Continuous Soapmaking, patented by Frederik Teodor Palmqvist, Stockholm, Sweden, assignor to Aktiebolaget, Separator, Stockholm. This invention consists of an apparatus for effecting chemical reaction between two reactants, which comprises parts including a circulation pump, a first holding tank, a mixer, and a second holding tank, piping connecting all of said parts in series in a closed first circuit in the order mentioned, reckoned in the direction of flow of material through the circuit, a first reactant feed line leading into the circuit at a point through which said material flows on its way from the second tank to the first tank, a second reactant feed line leading into the circuit at a point through which said material flows on its way from the first tank to the mixer, and a discharge line leading from the circuit at a point through which said material passes on its way from the second holding tank to said first reactant feed line.

No. 2,850,460. Odor Stabilized Detergent Composition, patented by Martin E. Ginn, Dayton, and Lloyd E. Weeks, Union, O., assignors to Monsanto Chemical Co., St. Louis, Mo. Described is a liquid detergent composition comprising 25 to 35 parts sodium tridecyl-β-sulfopropionate, 5 to 15 parts magnesium dodecylbenzenesulfonate, 15 to 25 parts ethanol, 0.05 to 0.5 part of a sodium ethylenediamine-tetracetic acid salt, and the balance of at least 40 parts being water to make a total of about 100 parts, all parts being by weight.

No. 2,854,419. Treating Floating Soap and Product Obtained Thereby, patented by Charles K. Clark and Robert O. Nason, Crossett, Ark., assignors to Crossett Co., Crossett, Ark. This patent teaches the process which comprises at least partially drying a floating soap obtained as a by-product of woodpulp digestion processes and containing a substantial portion of the impurities naturally present therein compressing said partially dried soap to an absolute density of at least about 0.95 gram per cubic centimeter and comminuting said compressed soap to produce a substantially non-caking, substantially non-dusting, particulate soap product which is resistant to spontaneous heating.

No. 2,854,375. Germicide, patented by Leon F. Shackell, Morristown, N. J. This patent covers a substantially water-free, phenolic, germicidal composition that is adapted as such for direct local application, said composition comprising a highly caustic monohydroxyphenol of the class consisting of carbolic acid, the isomeric cresols, o-chlorophenol, p-chlorophenol, and 2,4-dichlorophenol in substantially homogeneous physical admixture with a non-nitrogenous, oxygen-conntaining polar material whose molecular structure is rendered preponderantly anionoid in character by the presence therein of an effective number of electron-donating polar groups; said polar material being further characterized (*a*) by being chemically compatible with caustic phenol, and (*b*) by being capable of forming a substantially homogeneous physical system with more than its weight of the caustic phenol; the polar material in said physical system, when said system, so formed, is applied to a substanially dry, cutaneous surface, causing the phenol therein to exhibit a delay in the time of onset of its caustic effect of at least 100 percent beyond the time of onset of caustic effect of a control mixture containing the same phenol in the same proportion by weight as in said physical system, but with said polar material being substituted in the control mixture by a substantially non-polar hydrocarbon of the class consisting of cyclohexane, pinene, p-xylene and a mixture of isomeric hexylenes; said polar material being a triglyceride of an aliphatic carboxylic acid, said acid containing not more than twelve carbon atoms; said composition containing the caustic phenol in an effective germicidal concentration; and said triglyceride being present in the composition in an amount sufficient to reduce the causticity of the phenol without proportionately reducing its germicidal power.

No. 2,854,420. Treating Tall Oil Soap and Product Obtained Thereby, patented by Charles K. Clark and Robert O. Nason, assignors to Crossett Chemical Co. Another process is claimed which comprises at least partially drying a sodium tall oil soap obtained as a by-product of pulpwood digestion processes and containing a substantial portion of the impurities naturally present therein, compressing said partially dried soap to an absolute density of at least about 0.95 gram per cubic centimeter and comminuting said compressed soap to produce a substantially non-caking, substantially non-dusting, particulate soap product which is resistant to spontaneous heating.

No. 853,417. Method of Controlling Plant Pests with an Iodine Adduct of a Copolymer of N-Vinyl Pyrrolidone and Polymerizable Vinyl Compound Containing One Aliphatic Double Bond, patented by Jesse Werner, Holliswood, N.Y., and Frederick A. Hessel, Upper Montclair, N. J., and Daniel B. Witwer, Montclair, N.J., assignors to General Aniline & Film Corp., New York. A method is patented of protecting chlorophyllaceous plant material subject to attack by plant pests which comprises applying to said material a pesticidal amount of an iodine complex of a copolymer of 10 to 90% by weight of N-vinyl pyrrolidone and 90-10% by weight of a polymerizable vinyl compound containing one aliphatic double bond, the available iodine content of said complex ranging from 0.1 to 25% by weight of said copolymer.

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Book Reviews

New Fire Codes Edition

The six-volume 1958 edition of the *National Fire Codes* has just become available from the National Fire Protection Association, 60 Batterymarch St., Boston 10, at $7.00 per volume. Among the 170 separate standards are 38 new or revised fire safety standards adopted at the 1958 NFPA annual meeting, and all amendments approved by the association's board of directors up to July 30, 1958.

The six new volumes include the following groups of standards: volume 1—flammable liquids and gases (35 standards, 896 pages); volume 2—combustible solids, dusts, chemicals and explosives (35 standards, 656 pages); volume 3—building construction and equipment (31 standards and a discussion of building codes and references to model codes, 744 pages); volume 4—extinguishing equipment (33 standards, 1136 pages); volume 5—electrical; and volume 6—transportation and miscellaneous (29 standards on air, marine, bus, and truck transportation and salvage, plus a review of applicable government regulations, 672 pages).

—★—

CSMA Reprints

Reprints of two symposia given under the auspices of the Chemical Specialties Manufacturers Association, 50 E. 41st St., New York 17, N. Y., are now available it was announced early last month by H. W. Hamilton, secretary.

Papers dealing with various aspects of pressure packaged foods presented by the Aerosol Division of CSMA before the meeting of the Institute of Food Technologists in Chicago, last May, are now available in the form of a 24-page, 8½ x 11 inch booklet. Copies are priced as follows: $1.50 each for from one to 24 copies; $1 each for 25 to 99 copies and 90 cents each for 100 to 249 copies.

Reprints of the symposium, the second in a series, on analytical methods for surface active agents, are now being distributed in the form of 8½ x 11 inch, 18-page booklets. The papers in the symposium were presented during a meeting of the Soap, Detergents and Sanitary Chemical Products Division of the CSMA at its annual meeting in Florida last December. One free copy is available on written request to each CSMA member. The cost of additional copies is as follows: One to nine copies, $1.00 each; 10 to 49 copies, 50 cents each; 50 copies or more, 25 cents each.

—★—

New Fat Chemistry Text

A gap exists in the literature between the cursory treatment fat chemistry receives in most standard organic chemistry texts and its comprehensive treatment in specialized monographs. A new book has just appeared which attempts to bridge this gap: *An Introduction to the Chemistry of Fats and Fatty Acids*, by F. D. Gunstone, lecturer in chemistry at The University of St. Andrews, Scotland. Dr. Gunstone's book bears a foreword by T. P. Hilditch (*The Chemical Constitution of Natural Fats*), the author's former teacher.

Intended for university students and teachers, the text covers in six chapters the following subjects: fatty acids; chemical nature of fats; physical properties of fats and fatty acids; chemical properties of fats and fatty acids synthesis and utilization of fats in living organisms; and the chief technical applications of fats.

Chapter four, on chemical properties, is subdivided into four parts, the first of which deals with hydrolysis and esterification. Hydrolysis with alkali (saponification) is briefly outlined here as well as hydrolysis by water or fat splitting. In the third part of this chapter, concerned with reaction of the carboxyl group, amides, nitriles, amines and quaternary ammonia compounds and their surface active properties receive attention.

The final chapter outlines the chief industrial application of fats. Soap and soapless detergents for cleansing and other uses are included. References are given in the form of footnotes. A subject index is appended but appears to this reviewer not very complete.

An Introduction to the Chemistry of Fats and Fatty Acids, by F. D. Gunstone, John Wiley & Sons, Inc., New York, and Chapman & Hall, Ltd., London, 1958, pp. 161, clothbound, price $6.00.

—★—

Anionics Versus Soil

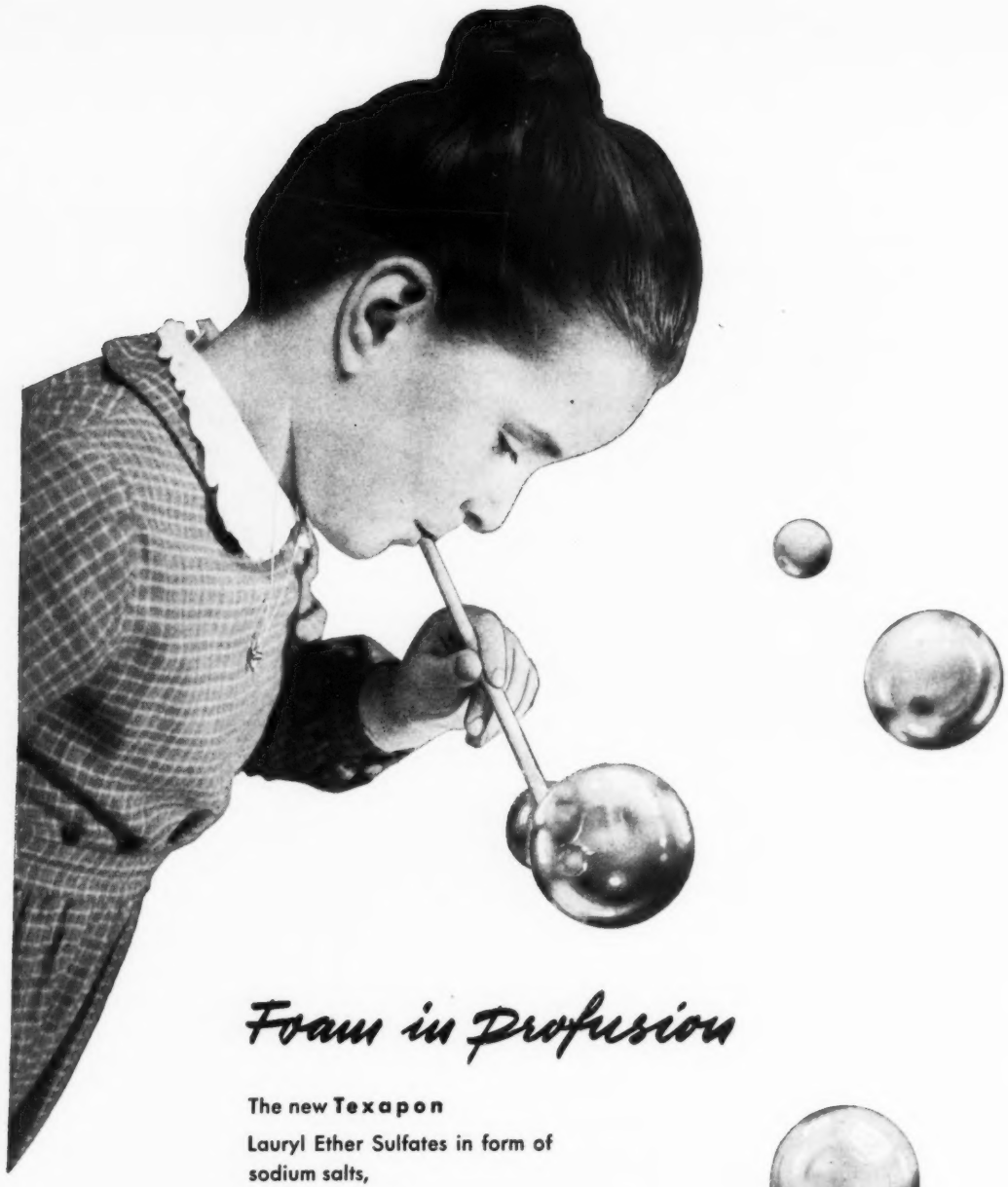
"Mechanism of Cotton Detergency," by R. D. Stayner was published recently in the form of a 16-page illustrated booklet by Oronite Chemical Co., 200 Bush Street, San Francisco 20. The article covers a brief study of substrate and soil and a detailed discussion of all phases of the cleaning process. The most important functions of anionic detergents in the laundering of cotton are dealt with as well as those of polyvalent anion builders such as polyphosphates and silicates. Dr. Stayner's survey is supported by 37 literature references and illustrated by a number of diagrams and very informative sketches.

—★—

New Detergents Glossary

"A Glossary of Terms Used in the Detergent Industry," by G. Carriere, Lever's Zeep Mij., N.V., Vlaardingen, Holland, has appeared in a second revised version in the October issue of *Soap, Perfumery, & Cosmetics*. The first version appeared in the May issue of *Fette, Seifen, Anstrichmittel*.

Dr. Carriere's glossary is actually a miniature dictionary in English, German, and French. The terms are grouped into 10 categories: general considerations, washing agent, textile, skin, dirt, water, washing process, evaluation of detergency, foam, and bleaching.



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triethanolamine salts,
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Products and PROCESSES

Novel Hand Cleaner

An industrial hand cleaner incorporating three sulfonated oils, one of them highly unsaturated, and an oily solvent is described in the August issue of *Schimmel Briefs*, published by Schimmel & Co., 601 West 26th St., New York 1. The formulation calls for one oil of high oleic acid content, one of the class comprising sulfated fatty alcohols and other products in which an alcohol group is sulfated (sulfonated castor or lanolin, for instance) and one of the highly unsaturated, drying or semi-drying type, such as sulfonated linseed, soybean, or tall oil.

The solvent is an emollient lower ester of a fatty acid such as butyl stearate, isopropyl myristate, or ethyl oleate, which counteracts some of the degreasing effects of the sulfonated oils.

Main function of the sulfonated drying oil is as a mutual solvent for the sulfonated oil of the first type (high oleic content) and the ester, which would otherwise be immiscible. The sulfonated drying oil also helps to remove resinous substances such as paints and silicone resins from the skin.

The composition has a mildly acid pH ranging from 4.5 to 5. The example given in the patent claim calls for the following proportions:

	parts
Sulfonated tallow	7.5
Sulfonated lanolin	6
Sulfonated soybean oil	1.5
Ethyl oleate	12

A perfume is said to be necessary to mask the odor of the sulfonated oils.

—★—

Bead-Form Metasilicate

Sodium metasilicate pentahydrate is now being offered in bead-like granular form by Cowles Chemical Co., 7016 Euclid Avenue, Cleveland 3. Made by conventional methods, this compound comes in the form of sharp crystals. Cowles' new process turns out a

Regular sodium metasilicate pentahydrate (left) and new bead-like granular form is shown at right.

product said to be of high purity and sized within very close limits, thanks to its granular form. "Crystamet 20-40" is said to be the most popular grade but coarser and finer grades are available. All are dustless, free flowing, and easy to compound with other granular chemicals, according to C. C. Bassett, Cowles director of sales, who announced the new development.

—★—

New Conoco Process

A new process for the manufacture of straight chain primary alcohols from petroleum was announced recently by John E. Kircher, general manager of the petrochemical department of Continental Oil Co., Houston, Tex. Ranging in chain length from six to 18 carbon atoms or higher, the alcohols will be marketed by Conoco under the trade name "Alfol." All products in this series have an even number of carbon atoms and most of them have so far been available only from conventional processes using natural oils and fats as the starting materials.

Synthetic detergents, lubricating oil additives, emulsifiers, cosmetics, and a host of other industries are among the potential users of Conoco's new petroleum based alcohols. A commercial scale plant of multi-million pound annual capacity for the manufacture of "Alfols" is planned by Conoco at Ponca City, Okla.

—★—

Glycerine Shave Creams

Shaving preparations incorporating glycerine are reviewed by F. V. Wells in the August issue of *Soap, Perfumery, and Cosmetics* (Glycerin in Soaps, Soap Products and Blended Synthetic Detergents, Part 2: Shaving Aids). An emollient shaving cream might be:

	parts
Coconut oil	10
Castor oil	2
Myristic acid	5
Stearic acid	25
Potassium hydroxide (89/90)	9.5
Borax	0.5
Diglycol stearate	2
Stearyl alcohol	1
Liquid petrolatum	1.5
Glycerine or sorbitol	5
Water	5

Potash and borax are dissolved in the water in a stainless steel vessel. The oils and fatty acids are added to this solution without being melted, since the heat of reaction will start saponification. The vessel is then heated on a water bath and the mixture stirred occasionally until saponification is complete. The remaining ingredients, except the glycerine, are added and the batch stirred slowly. The covered product is left on the bath for an hour, and the glycerine is then added. After aging, a shaving cream of good stability and cutaneous properties is obtained.

One of the aerosol shave creams suggested in the review has the following formula:

	parts
Stearic acid	8.2
Triethanolamine	3.7
Lanolin	0.5
Glycerine	2.0
Polyoxyethylene sorbitan monstearate	6.0
Water	79.6

90 per cent by weight of the shaving cream is pressurized with 10 per cent by weight of propellant, in this case dichlorodifluoromethane.

SOAP PLANT *Observer*

By John W. McCutcheon
Consulting Chemist

AUTOMATION applied to the problems of soap manufacturing is well illustrated by the continuous soap making plant engineered by G. Mazzoni S.p.A. of Busto Arsizio, Italy. In last month's column we mentioned a method for continuous processing of fatty acids to soap, developed and patented by Emery Industries, Inc., Cincinnati (U. S. Patent No. 2,085,691). A packaged unit, the Mazzoni plant also converts fatty acids to soap continuously. Advantages claimed for this installation over regular soap boiling practices are the following. (1) a wider range in the choice of raw materials and in finished product specifications; (2) Lower cost compared to conventional plants due to economy in laber, floor space, and utilities.

It must be pointed out that these claims are generally true for other continuous saponification plants, not only for the Mazzoni installation. In addition, the comparison is made against soap boiling in pans or kettles—a process which is now as obsolete as the Dodo bird. The comparison would be much tighter if this process were evaluated against continuous soap making plants such as the Monsavon or the Sharples process. However, some points are well taken by Mazzoni and serve as illustrations of what automation can do in the soap field.

It is true for example, that inferior fat may be used in such a plant since the splitting and distillation step can upgrade a dark tallow for use in a snow white product. The economics are not complete, however, unless one takes into consideration the loss to foots in the distillation process.

Another point well taken,

and one which has not previously come to the writer's attention in connection with other continuous processes, is the fact that mixed fatty acids and oils may be used to yield a finished product of controlled glycerol content.

The Mazzoni plant permits the use of mixed alkalis, which is another advantage. This is not possible with some types of continuous fat saponification methods. Regarding the presence of free alkali in the product, a plus or minus 0.01 per cent control is claimed. This is satisfactory for the highest grade of toilet soap.

A Mazzoni plant having a 1000 kilo/hr (2200 pounds/hr) capacity has the following dimensions: floor space, three and one half by six meters; five meters high (approximately 10 x 20 x 15 feet); steam consumption 65 to 70 kilos/hr (approximately 145-155 pounds/hr); 12 kw/hr power; and one man per hour of operation calculated on the basis of 63 per cent fatty acid soap.

The plant layout is shown in cut at the bottom of page in which A is the fatty acid feed tank, B, the alkali feed tank, C and D are filters, E and F are proportioning pumps, G and H are heat exchangers, L and M are automatic regulating controllers, N is the homogenizer, O, P and Q are first, second and third stage reactors, R, S and T are automatic controllers for alkali, and U is a soap pump.

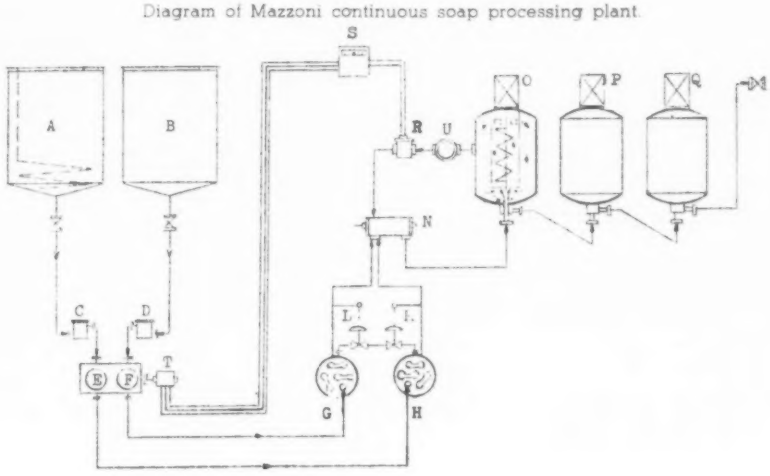
The key to the installation lies in the homogenizer N and its efficiency is such that the process guarantees a product containing less than 0.05 per cent free fatty matter. This percentage should be satisfactory for most operations and probably is much lower on high grade starting materials.

The cost? Well the Mazzoni Company has not passed this along. When this is forthcoming it will be so reported here.

* * *

Listening to a recording of one's own voice for the first time

Diagram of Mazzoni continuous soap processing plant



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is always a shock. One is forced to conclude that one never knew the sound of one's own voice and that only now one realizes what everyone else has been listening to for years. The sound of man's own voice as he hears it, is an inside job. Our ears receive vibrations both ways and what we think of as nice, smooth, well modulated tones may really be a rasping roar that would frighten children!

A company may similarly oscillate in such an isolated position that it hears and sees itself not as other do, and that it pictures itself in an entirely untrue light. Its research program may be based only on internal problems and contact with scientific progress in its own and other fields may be lost. Such a company generally follows a well worn groove right into receivership.

Familiarity with publications in one's own field, participation in conventions, seeking consultants' advice, and listening to what salesmen report from the outside, are the best antidotes to isolation.

—★—

New Dow Catalog

Dow Chemical Co., Midland, Mich., published late last month the fourth edition of its products catalog covering properties and uses of 375 chemicals. Included are glycols, used in permanent anti-freeze formulations and brake fluids, in industrial hand soaps, and in foam stabilizers among other specialties and industrial fields. A special table is devoted to the "Versene", "Versenex", and "Versenol" organic chelating agents.

Described as a new surface active agent that holds much promise for a wide variety of household and industrial uses is "Dowfax" 2A1. It is a light-colored free flowing powder, an anionic of the sulfonate type, and contains a minimum of 85 per cent active material. Described as a moderate sudsing agent it is said to be susceptible to either foam boosting or defoaming action.

Tells History of Silicates in Soap

THE history of soluble silicates as alkaline builders in soap and detergents is traced in the October issue of *Silicate P's & Q's*, published by Philadelphia Quartz Co., Philadelphia 6, Pa.

The hypothetical beginning of prehistoric cleanliness and the documented early history of soap dating back to about 2500 B.C. are traced. Addition of alkaline builders does not emerge until the early nineteenth century. Their use in soap was first covered by a patent issued in England in 1835. In America it was not until the Civil War brought an embargo on southern rosin that northern soapers began to consider silicates seriously. Eventually bar soaps came to contain 15 to 20 per cent. Sprayed soap powders, developed later, also carried generous quantities of silicates. And even toilet soaps contained one or two per cent to prevent rancidity.

Modern household cleansers are generally based on synthetic detergents formulated with polyphosphates for added detergency. Soluble silicates are used to counteract the corrosive action exerted by such combinations on soft metal parts of washing machines, etc. Formulations containing silicate in correct ratio and concentration yield slurries that spray dry satisfactorily.

Wetting, dispersing, soil suspending, emulsifying, and anti-redeposition action of the silicates is outlined. Household cleansers usually are formulated with siliceous silicates, whereas heavy duty products need silicates of higher alkalinity. Sodium silicate, for instance, is a basic ingredient in most dishwashing compounds and is also almost universally employed as a soap builder in commercial laundries. In high bicarbonate waters or where the average load carries larger amounts of soil, sodium sesquisilicate is effective. Highly alkaline orthosilicate is in common use by laundries handling linen supply work and other heavily soiled goods.

Silicates have little bactericidal power on their own but in combination with caustic soda they act as boosters of germicidal properties. This may be due to the wetting or penetrating action exerted by silicates. In dairy cleansers and similar compounded products this is an important consideration.

—★—

Two New Bareco Waxes

Bareco Wax Co., division of Petrolite Corp., has just announced availability of two new synthetic waxes for use in polymer emulsion type floor finishes. Addition of "C-6500" and "C-7500" makes polyacrylic, polyvinyl, and polystyrene emulsion floor products buffable and extends their floor life, their maker says.

Both waxes act as vehicles or binders for the polymer particles. Their incorporation is said to impart good film-forming properties to the formulation and increased hardness and toughness to the film. Light in color, the waxes are said to remain so in the aging finish.

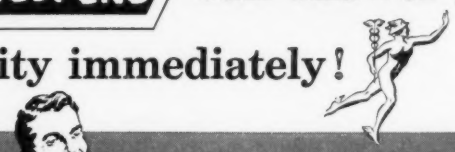
Samples and recommended formulations together with complete specifications for the new waxes may be had by request to Bareco Wax Co., P.O. Box 2009, Tulsa 1, Okla.

—★—

Armour Aliphatics List

Over 150 different fatty acids and aliphatic organic compounds are listed and described in tabular form in a new eight-page folder just published by Armour and Co., Chemical Division, 1355 West 31st Street, Chicago 9. Some compounds are included which had heretofore been unavailable in commercial quantities and a number of novel applications for established compounds are suggested.

Here's why WEST END can answer your inquiry on product availability immediately!



When you phone  an order or request information on current availability  or long term supply  of a product, the Sales Office Manager in Oakland with whom you speak can contact the plant at WEST END immediately.  He talks by private wire teletype  with the Production Manager. An answer or firm commitment is given immediately.  It is relayed to you often while you are still on the phone. 

WEST END 's Sales Office Manager  sales representatives  and plant executives  work together as a team manning a system that is, in our opinion, uniquely outstanding in the chemical industry. Their confidence in the efficiency of this system is reflected in the enthusiastic, helpful and friendly manner in which they promptly  serve you . . . our customers. 

WEST END CHEMICAL COMPANY
DIVISION OF STAUFFER CHEMICAL COMPANY
1956 WEBSTER, OAKLAND 12, CALIF. • PLANT, WESTEND, CALIF.

SODA ASH
SODIUM SULFATE
BORAX • HYDRATED LIME

D

B

P

P

News...

PEOPLE · PRODUCTS · PLANTS

DuBois Sells Half Interest

* * *

Bruno Young Dies

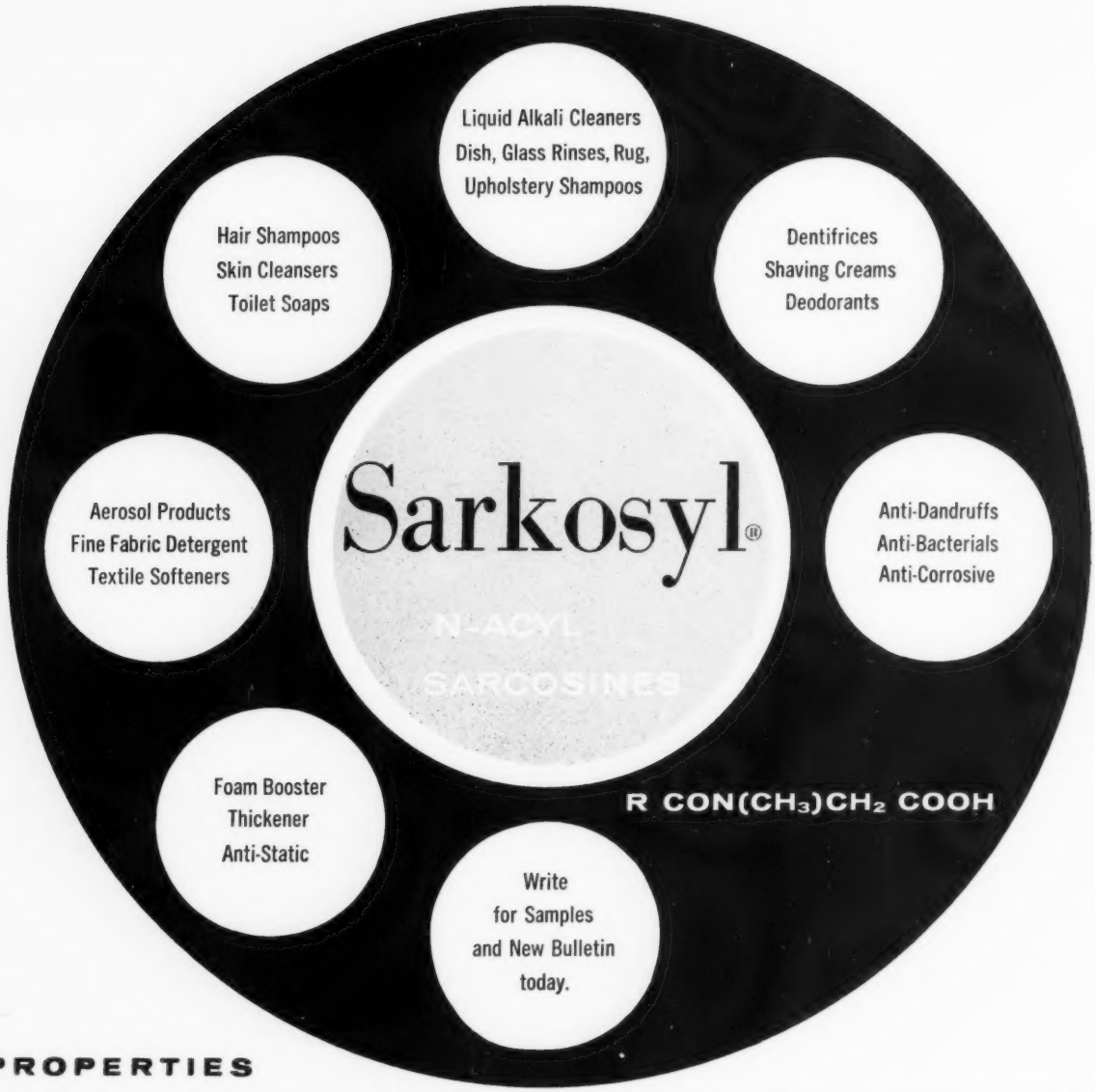
* * *

P&G Realigns Executives

* * *

Plough Acquires Creolin

Ray W. Boedecker completed 40 years in the soap and detergent business last month—all with the same firm, Colgate-Palmolive Co., New York. A veteran of the old Milwaukee Palmolive Co., he is now technical research adviser to associated products department. Pg. 151.



PROPERTIES

SARKOSYL surfactants are modified fatty acids in which the hydrocarbon chain is interrupted by an amidomethyl group. Physical and colloidal properties resemble those of the fatty acids, but the **SARKOSYL** products are more crystalline, more soluble (at acid pHs too), adsorb more strongly at interfaces. **SARKOSYL** acids and salts offer a range of solubility from mineral oil and silicones to 30% aqueous potassium hydroxide.

® Geigy Chemical Corporation registered trade mark

SPECIAL NOTE: Waterwhite, odorless, tasteless, low toxicity, anti-corrosive; synergist for lauryl sulfate.

	SARKOSYL NL30	SARKOSYL L	SARKOSYL LC	SARKOSYL O	SARKOSYL S
composition	sodium lauroyl sarcosine	lauroyl sarcosine	cocoyl sarcosine	oleoyl sarcosine	stearoyl sarcosine
concentration	30% aqueous sol.	95% min.	95% min.	95% min.	95% min.
setting point	—2°C	31°	19°	0°	50°
color	80 APHA max.	FAC 1	FAC 3	FAC 6	FAC 2
solubility: stoddard solvent	immiscible	130g./100g.	146g./100g.	miscible	5g./100g.

GEIGY INDUSTRIAL CHEMICALS
DIVISION OF GEIGY CHEMICAL CORPORATION
SAW MILL RIVER ROAD • ARDSLEY, NEW YORK
Chicago Portland Houston Los Angeles Cincinnati New York

200 years Geigy

News

Babbitt Names Torres

Joseph V. Torres has been appointed to the newly created position of director of overseas operations for B. T. Babbitt, Inc., New York, it was announced last month by Marshall S. Lachner, president.

Joseph V. Torres

In his new position, Mr. Torres is responsible for all foreign operations except in Canada and particularly for B. T. Babbitt Industria Quimica, S.A., Sao Paulo, Brazil, a wholly owned subsidiary.

Mr. Torres was formerly manager in the export department and has been with Babbitt since 1938.

—★—

P & G Tops Sales, Earnings

Diversification of products and strength of the organization were credited for the record year in sales and earnings of Procter & Gamble Co., Cincinnati, by R. R. Deupree, chairman of the board, at the company's annual shareholders meeting last month.

Despite a recession year, the company reported sales of $1,295,163,269 and consolidated earnings of $73,196,618 for the year ended June 30, 1958, the highest in its 121-year history.

Mr. Deupree noted that the downward trend in the nation's economy has leveled off and that slow but steady gains lie ahead.

"One thing to remember," the P&G chairman stated, "is that the purchasing power of millions of families in many parts of the country has not been seriously impaired. People have money in the bank and money to spend if merchandise can be improved and made to appeal to them."

He went on to point out that the diverse variety of P&G products dovetail in their basic ingredients and processing and that all are marketed, promoted, and sold in a manner with which the company has had long experience.

—★—

Glamur Appoints Kearns

The appointment of Jerry Kearns as national sales director of Glamur Products, Inc., Syracuse, N.Y., was announced last month by Jack Hosid, president. In his new position, Mr. Kearns is responsible for all "Easy Glamur" sales activities. He was formerly a sales representative with the company and has returned in his new executive capacity after a one year absence.

Under the firm's expanded national sales program, regional directors will be selected in all major marketing areas who will report directly to Mr. Kearns.

—★—

40 Years with Colgate

Ray W. Boedecker, technical research advisor for the associated products department of Colgate-Palmolive Co., New York, completed his 40th year with the company on Sept. 30.

Mr. Boedecker joined the old Palmolive Co., then located in Milwaukee, in 1918 in its plant chemical laboratories. Twelve years later he was transferred to the Chicago home office industrial sales department in charge of customer service. After a series of promotions, he was appointed to his present position.

Beach Names Jones

Dana C. Jones has been appointed sales representative in the Philadelphia area for Beach Soap Co., Lawrence, Mass., it was announced last month by the firm. Having completed the company's training course in commercial and institutional laundering, Mr. Jones is equipped to render service on washroom problems.

Dana C. Jones

Mr. Jones sells and services the Beach line of "Prime Sohp" and other specialty products for commercial laundries and institutions.

—★—

Lever Christmas Promotion

A set of 12 assorted Christmas cards is being featured by Lever Brothers, New York, as a box top promotion for its "Silver Dust" blue detergent. Consumers will receive the cards valued at $1.20 by mailing box tops from either four regular, two giant economy, or one king size carton of the product.

Special advertising supporting the promotion in 300 newspapers began early this month.

Also offered as an alternate choice is a set of 12 all-occasion cards. The special card promotion is in addition to the regular in-pack towel premiums featured with the product.

Resistant "STAPH"?
Use **G-11®** *(Hexachlorophene U.S.P.)*

Today, in hospitals throughout the country, increasing emphasis is being placed on programs for the control of staphylococcic infections. In some hospitals and communities these infections have at times approached epidemic proportions.

One important cause of this health hazard is the ease with which the staphylococci develop resistance to antibiotics.

Fortunately, these staphylococci show no resistance to G-11 (Hexachlorophene). It is one of the most, if not *the* most effective, of all commonly available antiseptics for the treatment of local infections and reducing the spread of staphylococci by preventing colonization on the skin and transmission via hands and the air.

Ask for complete technical report, "G-11 for Control of Staphylococcic Infections."

Sindar is the discoverer of hexachlorophene and its trade name "G-11" stands for the experience and knowledge gained through the years of widespread use. Our laboratories are staffed and organized to give you the benefits of this pioneer experience. Your inquiries will receive our prompt attention.

SINDAR® Corporation

321 West 44th Street, New York 36, New York

American in New Quarters

American Chemical Co. of Louisiana, Inc., moved to its new and larger plant and offices at 3850 Veterans Memorial Highway, Metairie, La., a few miles outside of New Orleans, during September. The firm had been located in New Orleans at 207 N. Peters St. (See "After Closing" section of the August issue of *Soap and Chemical Specialties.*)

Housed in the new ultra-modern one story structure are sales and executive offices, production facilities, a "floor lab" for testing various floor finishes and chemicals, and a show room.

New telephone number for the firm is Vernon 3-8292.

—★—

New Warwick Wax Formula

A new basic floor polish formula incorporating an improved permanent plasticizer which can be blended with polymer emulsions has been developed by Warwick Wax Co., division of Sun Chemical Corp., New York, it was announced last month by Maurycy Bloch, Warwick vice-president.

The formula, designated "PL 802," was developed specifically for use in producing light colored floor polishes with high initial gloss, extreme toughness, and water and slip resistance.

The development is said to be not only a new formulation based on polymer #8 but also an entirely new and improved method of emulsification. It has application as an addition to no-rub floor polishes containing polymer emulsions or resins and as a replacement for products now being used as plasticizers for normally hard and powdery polymers, according to the company.

—★—

U. S. Borax Names Four

Four changes and appointments were announced last month by John D. Moore, national sales manager for 20 Mule Team Products division of United States Borax & Chemical Corp., New York.

Joseph E. Clegg, assistant sales manager, transfers headquarters from Los Angeles to the New York national sales office. Joining the company in 1948 as a salesman, Mr. Clegg had been sales manager of the Boston district.

With the firm since 1936, Blair Watkins has been advanced from sales manager of the Los Angeles district to sales manager of the Pacific coast districts.

Formerly a special sales assistant for the central United States area, John E. Phelps is now sales manager in the Dallas district. He has been with the company since 1949.

Warren H. Pintard was appointed sales manager of the Los Angeles district. Previously a special sales assistant in the western area, he has been with the firm about six years.

Babbitt Gives Cash Prizes

As part of its sales promotion campaign held recently in the Albany, Schenectady, and Rensselaer, N.Y., areas, B. T. Babbitt, Inc., New York, awarded a total of $3,000 in cash prizes.

The campaign, called the "Tri-City Sweepstakes," involved the mailing of special coupons for discounts on Babbitt products and goods and services of local merchants to 175,000 families in the three county areas. Included in the mailing were entry blanks for a cash prize contest which simply had to be returned to Babbitt for the entrant's participation. Three prizes were awarded in each county, with the first prize worth $500, second, $350, and third, $150.

—★—

Borden Appoints Day

John Franklin Day has been appointed west coast sales representative for the consumer products department of the Borden Chemical Co., New York, it was announced last month by James A. Wold, general manager.

Mr. Day makes his headquarters in Los Angeles. He has been associated with Joseph T. Ryerson & Son, Inc., Fortifiber Corp., and United States Borax & Chemical Corp.

Included in the products for which he is responsible for wholesaler and dealer sales is the Borden line of "Elmer's" adhesives.

Joseph E. Clegg

Blair Watkins

John E. Phelps

Cowles Appoints Three

The appointments of Noel R. Gordon to the east Texas territory and Gus Wolff to the Los

N. R. Gordon G. Wolff

Angeles territory of the laundry chemical department of Cowles Chemical Co., Cleveland, O., were announced last month by William J. Schleicher, department manager.

Mr. Wolff has been associated with the laundry industry for about 28 years and has represented Cowles in North Carolina and southern California. He replaces Edward Gallstead who died last May.

Mr. Gordon, with several years sales experience, succeeds Peter J. Schleicher who was appointed southern division sales manager. After a training and indoctrination period, Mr. Gordon will be responsible for the east Texas territory.

Also announced was the appointment of Allen A. Freedain as technical representative in southern California and Arizona. He has been connected with the laundry industry for about 20 years.

—★—

CIBS Christmas Party Set

The annual Christmas party of CIBS of New York, will be held at the Waldorf-Astoria Hotel in New York on Saturday evening, Dec. 6, it was announced last month by Robert L. Williams of Givaudan-Delawanna, Inc., New York, program committee chairman.

Included in the program for the party are cocktails in the Sert Room at 6:30 p.m., dinner in the Starlight Roof at 8 p. m., and dancing from 9 p. m. to 1 a. m. A string trio entertaining and souvenirs and door prizes also will be featured.

Reservations are currently on sale at $35 per couple and may be purchased at the November meeting or from Mr. Williams at Givaudan, 321 West 44th St., New York 36.

—★—

Atlas Names Santilli

Joseph F. Santilli, Jr., was appointed manager last month of the marketing services section of the Aquaness department in Houston, Tex., of Atlas Powder Co., Wilmington, Del. In his new post Mr. Santilli is responsible for advertising, sales promotion, and sales administration in the department.

Previously he was with the advertising and sales promotion department of Atlas' chemicals division and earlier had been associated with Pennsalt Chemicals Corp.

Plough Acquires Creolin

Plough, Inc., Memphis, Tenn., recently acquired all capital stock of the Creolin Co., manufacturer of disinfectant products, formerly owned jointly by Merck & Co., Rahway, N.J., and William Pearson, Ltd., London, England.

Included in the purchase are complete manufacturing and sales rights within the United States and possessions for "Creolin" household disinfectant and "Hycol" and "V-C-P" industrial and veterinary disinfecants. Manufacture of these products will be moved to Plough's Memphis plant and distribution is being taken over by the company's national sales organization.

The Creolin transaction marks the eighth acquisition in two years by Plough.

Solvay Advances Todd

Harry C. Todd has been advanced to the newly created post of manager of distributor sales for Solvay Process Division of Allied Chemical Corp., New York, according to an announcement last month by Lester B. Gordon, Solvay vice-president. He is succeeded in his previous position as advertising manager by William J. Cannon. In his new post Mr. Todd directs the division's distributors throughout the nation.

With Solvay since 1927, Mr. Todd was in calcium chloride sales work for a number of years before his appointment as manager of advertising and sales promotion in 1946.

In the past few years he devoted some of his time to promoting Solvay's distributor relations. His efforts in this field have been so promising that he will now spend full time in the further development of distributor sales, Solvay said. Mr. Todd is also chairman of the publicity committee of the Calcium Chloride Institute.

Mr. Cannon joined the division's advertising department in 1954 after 16 years of advertising experience.

Harry C. Todd

William J. Cannon

Signing the contract for a joint "ride free" promotion between B. T. Babbitt, Inc., New York; Hudson Pulp and Paper Corp., New York, and Metropolitan Transit Authority of Boston, are (seated, left to right) Julian Mendelsohn, vice-president of Hudson, and Michael P. Frawley, executive vice-president of Babbitt. Representing the MTA is (standing, third from left) Edward Dana, general manager. Looking on are (left to right) John Hogan, Boston district manager of Hudson; Donald M. Paris, sales manager of Hudson's consumer products division; and John E. Roeser, Babbitt's New England district manager.

Colgate Names Tabibian

Edward Tabibian has been appointed merchandising manager of the household products division of Colgate-Palmolive Co., New York, it was announced last month by J. P. Kauffman, director of marketing for the division.

Mr. Tabibian is responsible for the general supervision and coordination of all merchandising of the division. Previously he was sales promotion manager for the "Birdseye" frozen foods division of General Foods Corp.

—★—

Vick Cosmetic Line Sold

All of the cosmetic interests of Vick Chemical Co., New York, were sold last month for an undisclosed amount of cash to Chesebrough-Pond's Inc., New York, it was announced jointly by J. A. Straka, Chesebrough-Pond's president, and H. S. Richardson, Jr., Vick's president.

Included in the sale were the Vick lines of "Prince Matchabelli" and "Simonetta" perfumes and cosmetics, "Seaforth" and "Black Watch" men's toiletries, and "Sofskin" hand creams. Prince Matchabelli, Inc., is now a wholly owned subsidiary of Chesebrough-Pond's.

Although the Vick cosmetic line proved a valuable property, Mr. Richardson stated that more than 90 per cent of the firm's business was concentrated in the drug and related fields. At the same time Chesebrough-Pond's has built its business in the field of quality cosmetics and toilet goods.

Also announced was the future concentration of all domestic manufacturing of Chesebrough-Pond's at its Clinton, Conn., plant through a $2.5 million expansion. The move will eliminate production and packaging facilities at McKees Rocks, Pa., and Perth Amboy, N. J., as well as New York City. Included in the expansion is the construction of a new one-story wing to the present three-story building as well as enlargement of laboratory, warehousing, shipping, and employee facilities.

—★—

Hagan Elects Everhart

James K. Everhart, Jr., was elected secretary and general counsel last month of Hagan Chemicals & Controls, Inc., Pittsburgh. Formerly assistant secretary and patent attorney for the company, Mr. Everhart succeeds the late Gordon A. Binkley, who died Oct. 1. Mr. Everhart joined Hagan in 1939.

Babbitt Boston Promotion

B. T. Babbitt, Inc., New York, recently signed an agreement with the Metropolitan Transit Authority of Boston for a cooperative "ride free" program similar to the arrangement in New York and Philadelphia. Hudson Pulp and Paper Corp., New York, is also participating in the campaign.

Under the contract both Babbitt and Hudson will print a coupon on the label of several of their products. Any four of these coupons may be redeemed at collectors' booths in the transit authority's stations for a free ride.

Babbitt products involved in the promotion include: "Bab-O", "Hep" oven cleaner, "Glim", "Air-Gene" room deodorant, and "Cameo" copper cleaner.

—★—

Crag Appoints Jones

Hugh Jones has been assigned to the Memphis, Tenn., sales headquarters of Crag Agricultural Chemicals, New York, it was announced last month by Union Carbide Chemicals Co., division of Union Carbide Corp., New York.

As a sales representative, Mr. Jones is under the supervision of J. R. Wheatley and concentrates on the market development of "Sevin" insecticide in the southeast. He works with pesticide formulators and agricultural experiment station personnel.

Hugh Jones

Johnson Advances Martin

Thomas B. Martin has been advanced to the newly created position of advertising and merchandising director for the service products division of S. C. Johnson & Son, Inc., Racine, Wis., it was announced last month by the company.

Thomas B. Martin

With the company since 1947, Mr. Martin was most recently sales training director of the maintenance products department. In his new post he directs merchandising and advertising for the Johnson line of maintenance products, industrial coolants and lubricants, agricultural wax coatings, and a new chemical specialty called "Porelon."

—★—

Howard Bork Dies

Howard J. Bork, 65, a superintendent of the Wildroot Co., Buffalo, N.Y., died in that city on Sept. 13. Mr. Bork had recently completed 50 years with the firm.

—★—

Colgate Earnings at Record

Sales and earnings of Colgate-Palmolive Co., New York, reached a record high for the first nine months of 1958. Net income for the period was reported at $14,776,000 or $5.77 per common share, compared with $14,459,000 or $5.66 per share in 1957. Sales were up from $388,223,000 to $403,539,000.

Consolidated earnings in the third quarter amounted to $6,421,000 or $2.52 per share, against $6,243,000 or $2.46 per share in 1957. Sales for the quarter totaled $138,093,000 compared with $133,348,000 last year.

—★—

Gillette Sales Down

Net sales of Gillette Co., Boston, for the nine months ended Sept. 30, 1958, decreased to $145,888,140 from $150,292,066 in the same period last year.

Net income amounted to $19,730,136, compared with $20,363,612 in 1957, and earnings per share this year were $2.13 compared with $2.19.

—★—

Carter Ad Campaign

Carter Products, Inc., New York, is sponsoring nine television programs this season to promote its "Rise" shave cream, "Arrid" deodorant, "Carter's Little Liver Pills," and "Nair" depilatory. Seven of the programs are presented on the Columbia television network and include two news programs, a panel show, and football and hockey games. The campaign is said to be one of the largest on network television undertaken by a major advertiser.

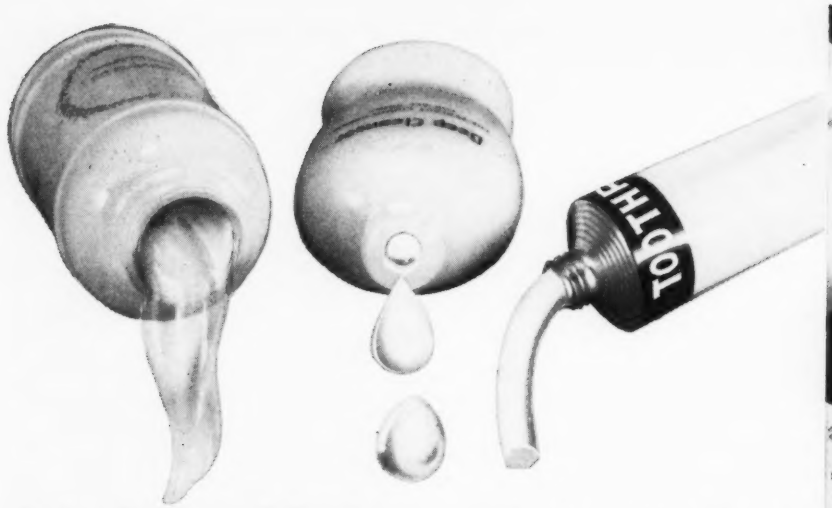
Geigy Names Rosenbaum

The appointment of Irwin M. Rosenbaum as technical sales representative in eastern Pennsylvania, Maryland, Delaware, and the southeastern states was announced last month by Geigy Industrial Chemicals, division of Geigy Chemical Corp., Ardsley, N. Y.

Irwin M. Rosenbaum

With Geigy since 1957, Mr. Rosenbaum has been in the customer service laboratory engaged in studies of chelating agents, optical brightening agents, U. V. absorbers, and surface active agents.

P. K. Thomajan, advertising consultant, (second from right), was guest speaker at CIBS' meeting in September at Toots Shor's restaurant in New York. His talk, titled "Advertising Gimmicks," was highlighted with illustrations. With Mr. Thomajan after lunch meeting are (left to right) Jay Stephens, Daggatt & Ramsdell, Inc., recording secretary; Samuel Zuckerman, H. Kohnstamm & Co., chairman, award committee; and William Jaeger, Park and Tilford Co., president of the association.



Gain full and lasting control over flow properties of water-based preparations with Dutch Boy® Ben-a-gel®

(gelling agent)

Cosmetic chemists have long been troubled by problems in flow uniformity. Now, "Dutch Boy" BEN-A-GEL gellant is making cosmetic news. Here's why!

In water-based systems, "Dutch Boy" BEN-A-GEL gellant provides predictable, reproducible and thixotropic control over flow (and other properties affected by consistency) in direct proportion to amount added.

Control is immediate

"Dutch Boy" BEN-A-GEL gellant establishes desired consistency without heat immediately upon compounding. Gels remain independent of temperature over a wide range and are maintained without significant change until product is used.

BEN-A-GEL gellant also provides three important protections for valued market-tested brands: . . . (1) no change in basic system characteristics; (2) no microbiological degradation; (3) no topical toxicity.

In creams and lotions, BEN-A-GEL gellant imparts desired "slip," stabilizes emulsions containing organics and . . . in pigmented preparations . . . enhances color.

In liquid make-ups, BEN-A-GEL gellant aids color development and prevents hard caking.

In shampoos (emulsified or carrying suspensions), BEN-A-GEL gellant controls thickening, assures package stability, aids suspension, de-emphasizes effect of particle size.

In tubed items, BEN-A-GEL gellant prevents "bleeding," improves flow and provides temperature stability.

Coupon brings sample

"Dutch Boy" BEN-A-GEL gellant is produced by National Lead Company and distributed in the cosmetic field by Whittaker, Clark and Daniels, Inc. For samples, for details of composition, properties and incorporation, mail coupon below to Whittaker, Clark and Daniels, Inc.

Dutch Boy Ben-a-gel
(gelling agent)
NATIONAL LEAD COMPANY
111 Broadway, New York 6, N. Y.
In Canada: CANADIAN TITANIUM PIGMENTS LIMITED,
630 Dorchester Street, West • Montreal

WHITTAKER

WHITTAKER, CLARK AND DANIELS, INC.
260 W. Broadway, N.Y. 13, N.Y.

Gentlemen: Please send free sample of "Dutch Boy" BEN-A-GEL gellant along with detailed information on its incorporation.

Name_____ Title_____

Firm_____

Address_____

City_____ Zone_____ State_____

Phillips Solvay VP

Arthur Phillips, Jr., has been appointed vice-president of Solvay Process Division of Allied

Arthur Phillips, Jr.

Chemical Corp., New York, it was announced last month by I. H. Munro, division president.

Also appointed were Verne W. Aubel, Jr., as director of sales, Robert L. Reynolds as assistant director of sales, and G. Richard Barclay as manager of the sales department's organic chemicals division.

Mr. Phillips joined Solvay as a salesman in 1929 and was in the Detroit area until he entered the Navy in 1942. In 1946 he was appointed manager of the Detroit sales branch. He became assistant director of sales in 1954 and the following year was appointed director.

Previously assistant director of sales, Mr. Aubel joined Solvay in 1939 as a salesman at the Philadelphia branch. He has held positions with the ammonium and potassium products department and was successively manager of the calcium chloride department and Philadelphia sales branch.

Mr. Reynolds was formerly manager of the sales department's organic chemicals section and has been with Solvay since 1940. First employed in the technical service department, he was later field sales representative at the Detroit and Philadelphia branch offices.

Joining Solvay in 1950, Mr. Barclay was most recently assistant to the manager of the organic chemicals section. First assigned to technical service in Syracuse, N.Y., he was later transferred to Detroit as a salesman.

Verne W. Aubel, Jr.

—★—

New Industrial Cleaner

An all-purpose, concentrated, heavy-duty safety cleaner and degreaser is now available from Harco Chemical Co., Cranford, N.J.

Designed for a wide variety of cleaning jobs in the industrial plant from washrooms and kitchens to degreasing machinery, the product is non-flammable, non-toxic, and is said to be harmless to hands. Called "Harco Safety Spray," it contains rust and corrosion inhibitors. The product is diluted with water by the user.

Robert L. Reynolds

Polak Executives Travel

Executives of Polak's Frutal Works, Inc., Middletown, N.Y., may be establishing some records on international travel. Bernard Polak, president, recently went to Manizales, Colombia, to attend the opening of Polak's Frutal Works de Colombia, Ltda., a subsidiary company.

J. E. Meihuizen, managing director of Polak's associate firm in Amersfoort, Holland, was in the United States last month for two weeks to confer with company officials in Middletown.

And Eric Vles, treasurer, returned in September from a 19 day trip through Europe with representatives from the Society of Cosmetic Chemists.

—★—

New Du Pont Booklet

A new method for analyzing and comparing metal cleaning costs is contained in a new booklet issued by the electrochemicals department of E. I. du Pont de Nemours & Co., Wilmington, Del.

Called "High-Spot" cost analysis, the method uses standard cost factors by which total hourly cleaning costs can be figured by inserting basic operating information into simple formulas.

Economies resulting from the method include savings in operating costs of existing cleaning systems as well as selection of the most economical system for new or expanded operations, according to Jerome J. Hargarten, solvent services manager of the department.

—★—

Dow Elects Schuette

William H. Schuette, general manager of the Midland division of Dow Chemical Co., Midland, Mich., was elected a vice-president of the company at a board of directors meeting in September. He continues as general manager of the division. Dr. Schuette joined Dow in 1941 and was named plastics production manager in 1952. He was elected a director last year.

Reach over 5,900

JOBBERS OF SANITARY SUPPLIES

with your advertising!

The largest number of jobbers covered by any magazine today!

Investigate the market coverage and circulation of

Maintenance and Sanitary Supplies

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Here is a monthly magazine giving you direct coverage of 5,900 jobbers of sanitary supplies and equipment, — janitor supply jobbers, paper jobbers, school supply jobbers, hotel, restaurant, club and bar supply jobbers, hardware distributors, and others jobbing sanitary supplies.

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Emery Appoints Four

Four appointments to the organic chemical sales department staff of Emery Industries, Cincinnati, were announced last month by R. F. Brown, sales manager. Robert S. Haley has been assigned to the New York office; J. Warren Sackett to the Cleveland office; Walter R. Paris to the Lowell, Mass., office; and Robert H. Endres to a newly-created territory with headquarters in Pittsburgh.

J. W. Sackett

R. S. Haley

W. R. Paris

R. H. Endres

Mr. Haley handles all non-textile chemicals in the organic chemical line. Previously he was with the Vopcolene division as Eastern sales representative.

Before joining Emery, Mr. Sackett was general manager of Bay Rubber & Plastics, Inc. In his new position he handles the entire organic chemical line in eastern Michigan and all of Ohio except the southeastern portion.

Mr. Paris was formerly with Godfrey L. Cabot, Inc., as New England sales representative. He now sells Emery's non-textile chemicals in New England and upper New York.

Formerly with Standard Oil Co. of Indiana, Mr. Endres now covers western New York, western Pennsylvania, West Virginia, and southeastern Ohio.

Hexachlorophene v. Staphs

"'G-11' (Hexachlorophene U.S.P.) for Control of Staphylococcic Infections" is the title of a survey by W. S. Gump and R. E. Vicklund, featured in a recent issue of *Sindar Reporter*, published by Sindar Corp., New York. Staphylococci do not acquire resistance to "G-11," a most important fact in the light of resistant strains currently posing a serious problem in hospitals and communities.

Having dealt with the topical action of hexachlorophene in cleansing creams, lotions, etc., the authors turn to the use of bacteriostatic detergents. Fabric samples laundered with a detergent containing 0.2 per cent hexachlorophene showed bacteriostatic activity against staphylococci resistant to antibiotics. It has been shown that hospital laundry can spread "staph" throughout multi-storied hospitals when dropped into laundry shoots. Bacteriostatic laundry detergents may be the answer to this particular source of infection.

Detergents or soaps containing "G-11" in regular use by nursery personnel and in the bathing of infants has been reported to reduce spread of staphylococci by preventing colonization on the skin and reducing transmsision via hands and air.

There is increasing evidence that bacteriostatic residual agents applied to floors, walls, clothing, bedding, etc., are of value in reducing environmental contamination.

The article is supported by 20 literature references.

—★—

Armour Price Reductions

Price reductions from three to 14 cents a pound on its line of ethoxylated fatty acids and fatty acid derivatives were announced recently by the chemical division of Armour and Co., Chicago.

Enlarged production facilities completed recently at the firm's chemical plant at McCook, Ill., were credited with making the reductions possible. Products included in the reduction are ethoxylated amines, diamines, amides, and fatty acids.

—★—

Babbitt Names Two

B. Kimberly Prins, Jr., and Robert F. Ferrin have been appointed assistant product managers in the marketing division, it was announced last month by Jack W. Sugden, vice-president and director of marketing of B. T. Babbitt Inc., New York.

Formerly with Procter & Gamble Co., New York, for two years as assistant sales manager, Mr. Prins joined Babbitt early this year. In his new post he coordinates marketing division activities with the firm's advertising program.

Mr. Ferrin, who joined the firm in 1956, coordinates the division's operations with the sales department.

B. Kimberly Prins

Robert F. Ferrin

New Meer Warehouse

Meer Corp., New York, recently announced the opening of a new botanical drug and gum warehouse in Chicago at 325 West Huron St. The expansion improves delivery speed to the firm's customers in the mid-west, according to Roy Champlin, regional sales manager.

A complete line of water soluble gums, and most non-perishable drugs and extracts are included in the stock of the Chicago facility.

—★—

25 Years with Fritzsche

Another employee of Fritzsche Brothers, Inc., New York, was elected recently to membership in the company's Quarter-of-a-Century Club. Harry Hoerning of the shipping department completed 25 years of service with the firm on Sept. 21 and was honored at a luncheon celebration. Mr. Hoerning received a gold watch from his fellow employees, a government bond, and an engrossed scroll from the firm's officers and board of directors.

—★—

Good Celebrates 90th Year

James Good Co., Philadelphia, manufacturing chemists, celebrates its 90th anniversary in business this year. Founded in 1868, the company has adhered to serving jobbers and distributors throughout its history, according to Robert England, president and owner.

The firm is said to be the pioneer in the manufacture of fish oil soaps and fish oil sprays. It is one of the few present-day concerns operating its own powdered rosin mill. Among the products produced by Good are vegetable oil soaps, liquid soaps, scrub soaps, floor waxes and polishes, insecticides, and weed killers.

—★—

Buys DuBois Interest

Hall-Scott, Inc., Berkeley, Cal., announced plans last month to purchase a half interest in Du Bois Co., Cincinnati, industrial soap and detergent manufacturer. Although terms of the acquisition were not disclosed, William Nelson, Hall-Scott president, made known that the purchase was being made "substantially" from 250 DuBois stockholders. He added that DuBois management will remain the same with his firm represented on the board.

The acquisition, Hall-Scott's first since it disposed of its manufacturing operations earlier this year, is expected to result in Du Bois becoming the basis for the firm's expansion in the chemical industry, according to Mr. Nelson. DuBois has plants in four states. Its earnings for the fiscal year ended Feb. 28, 1958, were $1,900,000 and profit for the six months ended Aug. 31, 1958, was about $880,000.

Hall-Scott disposed of its motor division and electronics division last May.

Canadian Meeting

(*From Page* 63)

and general manager of G. H. Wood Co., Ltd., Toronto. Mr. Wood's presentation will be given in the Duluth room at 3:45 p.m. It will be followed by a showing of the film, "The Golden Hours."

A social feature, the cocktail party, at 6:00 p.m. in the St. Maurice room, and the banquet and floor show in the Duluth-Mackenzie room at 7:00 p.m., are the final programmed events. The banquet speaker will be M. Jean Gillet, vice-president of the Montreal Citizens' Committee.

A program for women attending the meeting consists of a sightseeing tour of Montreal and luncheon at St. Helen's Island on Thursday, Nov. 13, beginning at 10:30 a.m. On the following morning a tour of the Queen Elizabeth Hotel is scheduled, starting at 10:00 a.m. Women also may attend the banquet.

—★—

Glidden Division Renamed

The name of Southern Chemical Division of Glidden Co., Cleveland, has been changed to Organic Chemicals Division, it was announced Oct. 10 by William C. Lighter, executive vice-president of Glidden. The name change is in recognition of the trend of the division toward new developments in organic chemicals. Headquarters of the division remain in Jacksonville, Fla., with Dr. W. David Stallcup as vice-president in charge.

Packaging Institute

(*From Page* 109)

phane as the dominant overwrap material."

One highlight of the forum was a closed circuit TV broadcast from the Charleston, S. C., plant of West Virginia Pulp & Paper Co., to the hotel's ballroom, which gave the convention delegates an opportunity to see the actual manufacture of "Clupak" stretchable kraft paper. Because of its flexibility and toughness, this new paper product "opens new packaging frontiers," according to L. R. Lawson, Jr., commentator on the telecast.

Among other new materials for packaging use, Gaylord Container Corp's collapsible "Drumpaket" fiberboard drum was described by H. E. Taylor of Greenville, S. C. who stressed its suitability for shipping bulk granules and other substances. Wirebound corrugated containers for bulk shipment of granular and powered materials were described by Henry A. Wolsdorf of Stapling Machine Co., Rockaway, N. J. T. E. Dowling, American Cyanamid Co., New York, presented multiwall bag sewn closures. Aluminum cans, plastic and aluminum closures and other materials were also discussed by authorities on these subjects.

In a seminar session on the printing of folding boxes, five authorities in their respective fields

explained the advantages of the lithographic, letterpress, gravure, flexographic and silk screen printing processes. For package printing there was general agreement that the process selected should be the one which most effectively achieves the purpose of the particular package involved.

At the business session, Oct. 13, Charles W. Kaufman, director of research and development for National Dairy Products Corp., was elected president of the Packaging Institute for the 1959 term. Also elected as vice-president, was George Weissman, vice-president and director of marketing for Phillip Morris, Inc. Harold Mosedale, Jr., of Package Machinery Co., and L. H. Zahn, Ciba Pharmaceutical Products, Inc., were re-elected vice-presidents.

Frank W. Cray, Interchemical Corp., and C. F. Schokmiller, Grove Laboratories, were re-elected to 3 year terms on the board of directors. Four newly elected directors are John C. Clay, National Starch Products, New York, Paul Bolton, Carnation Research Laboratories, Van Nuys, Calif., Norman L. Esthus, Morton Salt Co., Chicago, and Fred W. Langner, Socony Mobil Oil Co., New York.

Highlight of the Tuesday evening Oct. 14, banquet was the presentation of the Packaging Institute's three annual awards.

Bristol Myers Co., received the 1958 corporate award for development of its "Ipana-Plus" dentifrice container, by which, as the citation reads, " a major change in dentifrice packaging was accomplished." The basic purpose of this interior-lined polyethylene container, it was explained, was "to provide more volume of product, while taking up less shelf space and yet protect the physical values of the new dentifrice formulation."

Co-operating with Bristol Myers, in developing this container was its supplier, the Plax Corp, whose technical service man, James H. Parliman received the award made by the Institute's technical operations committee for his paper, entitled "Lined Polyethylene Bottles." This , the committee decided, was "the most informative technical paper of greatest importance to the field of packaging technology presented at the Chicago meeting."

The Packaging Institute's Professional award went to Chas. A. Southwick, Jr., of Hazel Atlas Glass Co. Division of Continental Can Co., and currently technical editor of *Modern Packaging*, for his many contributions over the past 30 years to the field of packaging technology.

A hand illuminated scroll was presented to N. W. Postweiler, Riegel Paper Co., in recognition of his work as program chairman at both the New York forum in 1957 and the 1958 forum in Chicago.

The 21st annual national packaging forum of the Packaging Institute will be held in New York City, Nov. 16, 17 and 18, 1959.

Letters . . .

(*From Page 33*)

authority in the U. S. A. charged with the establishment of tolerances as to the dosage of harmful insecticides in household packages, or is there any other organization which can supply comprehensive data on the toxicity of insecticides as listed in the article by Dr. Zavon?

J. Slagt,
N. V. Philips-Roxane
Amsterdam,
Holland

Under the Food Additives law just passed by the U. S. Congress, insecticide residues in all phases of food processing are regulated by the Food and Drug Administration of the U. S. Department of Health, Education and Welfare. In addition the U. S. Department of Agriculture sets residue tolerances for insecticides used on food crops under terms of the Federal Insecticide, Rodenticide and Fungicide Act. This law also requires labels of all types of products covered by the act to be submitted to the Department of Agriculture for clearance of ingredient statements, adequacy of warning statements, and accurracy of product claims.

Nearly all of the 49 states in the United States have laws requiring registration of all pesticides, and many of the counties and cities within the states have statutes regulating the sale of pesticides. There is also a Federal Caustic Poisons Act which provides for the type of warnings and labeling required for products described by the Act and which are sold in interstate commerce.

At present there is a great deal of work and thought going into so-called precautionary labeling laws on the national, state and local levels. Bills are pending in both Houses of Congress and many will be introduced in the majority of state legislatures which will be meeting starting early next year. Some state labeling laws have been passed. Model bills have been prepared, discussed and distributed by the Chemical Specialties Manufacturers Association, the American Medical Association and the Manufacturing Chemists' Association. New York City is in the process of completely revising its Health Code, and this action is being followed closely by many interested groups. Quite often when a city the size of New York acts on a matter of this sort many other municipalities adopt similar statutes. Ed.

★

Bruno Young Dies

Bruno W. Young, 65, head of Wax & Rosin Products, New York, died of a heart ailment, October 16. Mr. Young founded

the firm 16 years ago with a partner, A. B. Jordan. Born in Germany, Mr. Young had been in the wax field throughout his business life. From the 1920's until he left Germany in 1937 he headed his own firm in Hamburg, which traded under the name E. N. Becker & Co.

After a brief stay in England, Mr. Young came to the United States in 1938. Wax & Rosin Products started out as a general wax trading concern. Since 1949 the firm has been sole distributor in the United States of "Hoechst" (formerly "Gersthofen" I.G.) waxes.

—★—

New UBS Plant Planned

U.B.S. Chemical Corp., Cambridge, Mass., has selected a site at the Massachusetts Industrial Center in Marlborough, Mass., as the location for its expansion in the New England area. A lease for the site was signed recently and construction of manufacturing facilities is scheduled to begin in the near future.

Office of E. R. Durrer, president of Givaudan-Delawanna, Inc., New York, in firm's new headquarters. With Mr. Durrer, right, is H. F. Duffy, treasurer. In lower photo is soap finishing lab in miniature for testing soap perfumes made by Givaudan. This installation is capable of turning out three ounce bars and tablets of soap. It is equipped with mill, plodder and stamping machine for three ounce cakes and a plodder and stamping unit for the small tablets.

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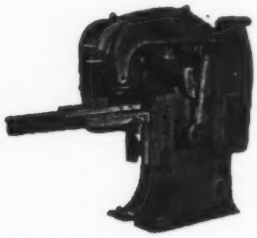

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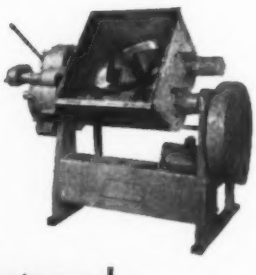

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Salesman Wanted: Chemical company producing a line of surfactants, sulfonated oils and specialties seeks a salesman to cover textile, paper and chemical plants in New England states. Age 28-35. Prefer man with some selling experience and possibly a following. Must have background in chemistry. Address Box 193, c/o *Soap*.

Plant Supt. Wanted: An individual with experience and know-how in the manufacture of automobile polishes and waxes and general auto clean up chemicals, to assume managership of Southern plant on a salary and profit sharing or partnership basis. The best opportunity for right individual. All replies confidential. Address Box 199, c/o *Soap*.

Salesman Wanted: Prominent East Coast manufacturer of waxes, polishes and cleaners has opening for sales representative in the New England and New York territory. Man must have experience in calling on jobber and private label buyers. Excellent opportunity. Salary, commission and expenses. Company has established business in territory. Address Box 194, c/o *Soap*.

Chemist: Old, established, financially sound sanitary supply firm, manufacturing chemical specialties, wants experienced chemist. Applicant must have at least 5 years experience in floor waxes, insecticides, and chemical specialties field. Apply by letter, giving full details of experience, education, and salary required. Address Box 6508, Station "G", Atlanta 15, Georgia.

Chemist: Wanted for medium sized Eastern chemical specialties manufacturer. Applicant must have experience in floor maintenance products, disinfectants and polishes for industrial application. If you are seeking an opportunity with a growing company this is it. Salary

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Situations Wanted

Soap Maker: Experienced in manufacturing all kinds of soaps, detergents. Owned soap factory in Poland. Manager soap factory in Israel for nine years. Just arrived. Speak German, English and Polish. Address Box 200, c/o *Soap*.

Soap Maker: Retired soap expert with 40 years background in technical phases of all types of soap making is available on part time basis or to handle individual jobs of trouble shooting. Thoroughly familiar latest production methods. If interested, write Box 182, c/o *Soap*.

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(*Continued on Page* 177)

For Sale

For Sale: By I. E. Newman, 818 W. Superior St., Chicago, Ill. Mixers: Marion - Munson - Maclellan sizes 50# to 10,000#; Crutchers 1000-8000#. Wrapper type S.; Auto. presses, cutting table, plodders and chemical equipment. Prices on request.

For Sale: Back Issues of *Soap and Chemical Specialties* from Jan. 1948 up-to-date. Address Box 2, Parkville Sta., Bklyn 4, New York.

Now Available: 78 page listing of "Surfactants" (1958) Price $2.50. Write John W. McCutcheon, 475 Fifth Ave., New York 17.

Wyandotte Sales Rise

Sales for the third quarter of 1958 for Wyandotte Chemicals Corp., Wyandotte, Mich., were reported last month at $23,410,000, compared with $22,848,000 a year ago. Earnings for the period were $1,272,000 or 80 cents a common share, against $1,436,000 or 92 cents a common share last year.

For the nine months ended Sept. 30, 1958, sales totaled $58,479,000, compared with $63,001,000 in 1957. Earnings amounted to $1,736,000 or 95 cents a share which were below the 1957 amounts of $3,644,000 or $2.28 a share.

Detergent-Sanitizers

(*From Page* 89)

tural Chemists, 8th Ed, 1955
3. Suter, C. M. *Chem. Rev.* 28, 269 (1941)
4. Hampil, B., *J. Bacteriol,* 16, 287 (1928)
5. Schaffer J. M. and Tilley, F. W., *J. Agr. Res.,* 41, 737 (1930)
6. Cade, A. R., *Soap,* 11(9), 27 (1935)
7. Bean, H. S. and Berry, H., *J. Pharm. and Pharmacol.* 3, 639 (1951)
8. Wright, E. S. and Shternov, V., Chem. Specialties Mfrs. Assoc. Proc. 45th Mid-Year Meeting, 1958

—★—

Revlon Sales Increase

Revlon, Inc., New York, has reported its net sales for the first nine months of this year increased to $80,040,000, compared with $69,399,000 in the same period last year. The 15 per cent rise marks a new high in net sales for the company for the nine months.

Earnings also rose from $6,593,000 last year to $6,945,000 this year, which was equal to $2.70 a share against $2.47 a share in 1957.

Management . . .

(*From Page* 47)

greatest problem over the next several years will be to develop management talent—*to have men ready to manage a growing business.* We know if we don't have those men ready to meet the challenge of a growing population which must be served, we'll be in real trouble. I think we'll be ready, and I think industry in general is going to be ready with manpower to handle the growth of the future.

To be sure, the coming years will bring with them some surprises and many new problems. But if we as a nation have the ability to handle our affairs as well as in the past, if we maintain our freedom, there's *nothing* to fear about the future and a *great deal to look forward to.*

Colgate Names White

Kenneth White has been appointed product manager of the toilet articles division of Colgate-Palmolive Co., New York, it was announced last month by R. E. Hilbrant, vice-president and director of marketing.

Formerly vice-president in charge of sales, advertising, and marketing for the Bon Ami Co., New York, Mr. White is now responsible for advertising and merchandising "Halo" shampoo and the Colgate men's line. He reports directly to E. A. Gumpert, general product manager.

—★—

James Sullivan Dies

James F. Sullivan, 87, died at his home in Springfield, Mass., on Oct. 3. He retired from Perkins Soap Co. a few years ago and had been associated with Fisk Soap Co. for many years.

Mr. Sullivan is survived by two sons, a daughter, and three grandchildren.

J. M. Ewell

C. K. McCracken

D. P. Fite

New P&G Officers

Three executives of Procter & Gamble Co., Cincinnati, were elected to new positions in the company last month.

J. M. Ewell, formerly vice-president—manufacture, was elected vice-president — manufacturing and employee relations; C. K. McCracken, previously vice-president and comptroller, was named vice-president — corporate affairs; and D. P. Fite, who was associate comptroller, becomes comptroller.

Mr. Ewell reports directly to P&G's president and has staff responsibilities for the entire company in manufacturing, employee relations, engineering, industrial engineering, and office methods planning. In addition he is responsible for the company's office and building management in the Cincinnati area.

In his new post, Mr. McCracken reports to the administrative vice-president and is responsible for the comptroller's division, treasury department, and the office of the company's secretary.

Mr. Fite replaces Mr. McCracken as operating head of the comptroller's division.

—★—

Du Pont Appoints Two

Garth R. Parker and Bruce McDonald have been assigned to the Los Angeles and San Francisco areas, respectively, as sales representatives for the industrial chemicals section of the polychemicals department of E. I. du Pont de Nemours & Co., Wilmington, Del. Both will handle sales of methanol, chemical urea, "Lorol" fatty alcohols, adipic acid, and a variety of chemical specialties.

Mr. Parker joined the polychemicals department early this year and Mr. McDonald has been with Du Pont since 1957 as a sales representative.

—★—

Diversey Reports Earnings

Net income of Diversey Corp., Chicago, decreased in the third quarter to $162,673, compared with $178,071 for the same period last year. Earnings fell from 68 cents per share in 1957 to 61 cents in 1958.

For the nine months ended Sept. 30, 1958, net income amounted to $322,759 or $1.26 a share, against $409,973 or $1.56 a share in 1957.

—★—

Helene Curtis Meeting

A sales meeting will be conducted by Helene Curtis Industries, Inc., Chicago, at the Hollywood Beach Hotel, Hollywood, Fla., from Nov. 29 to Dec. 4.

—★—

Hooker Products List

A 12-page revised, chemical products list titled "Hooker Chemicals" has been published by Hooker Chemical Corp., Niagara Falls, N.Y. Five new chemicals recently made available on a commercial basis are listed in the booklet which is designated Bulletin 100-B. A description, chemical formula, physical data, uses, and shipping data are detailed for each of the 65 Hooker chemicals on the list.

—★—

New Damp Control System

Comfort Engineering Co., 1673 N.E. 123rd St., Miami, Fla., has developed a new type damp control system which will be sold through sanitary supply jobbers. It consists of a chemical product called "Vap-O-Air" mildew preventive which is supplied with a burnished copper type wall container and a matching ceiling air circulator. The slab of mildew preventive is intended to dehumidify and purify the air, kill moths, and repel insects. Refills are available as needed. The air circulator is powered by a self-lubricating motor which turns on and off as conditions require.

Jack Roth heads the new firm and Moure Levine is secretary-treasurer. Mr. Roth was formerly a partner in Dunrite Industries, Detroit, a franchise dealer in the installation of Owens-Corning "Fiberglas". The product used in the "Vap-O-Air" system has been in development for about two years, according to Mr. Roth, who sold his share in Dunrite, organized Comfort Engineering and moved the business to Miami last May. Mr. Levin, who was in the chemical specialties industry in Detroit, is also in charge of sales.

Coming Meetings

American Oil Chemists Society, 50th anniversary spring meeting, Roosevelt Hotel, New Orleans, April 20-22, 1959.

Association of American Soap & Glycerine Producers, 32nd annual convention. Waldorf-Astoria Hotel, New York, Jan. 20, 21 and 22, 1959.

Canadian Chemical Specialties Manufacturers, first annual meeting, Queen Elizabeth Hotel, Montreal, P. Q., Nov. 12-14.

Chemical Specialties Manufacturers Association, 45th annual meeting, Commodore Hotel, New York, Dec. 8-10; 45th midyear meeting, Drake Hotel, Chicago, May 18-20, 1959.

Commercial Chemical Development Association, joint meeting with National Agricultural Chemicals Association, Lord Baltimore Hotel, Baltimore, Nov. 20-21.

Drug, Chemical and Allied Trades Section of the N. Y. Board of Trade, alumni dinner, Waldorf Astoria Hotel, New York, Nov. 19.

Entomological Society of America, sixth annual meeting, Hotel Utah, Salt Lake City, Dec. 1-4.

National Packaging Show of American Management Association, International Amphitheater, Chicago, April 13-16; packaging conference, Palmer House, Chicago, April 13-15.

National Sanitary Supply Association, 36th annual convention and trade show, Conrad Hilton Hotel, Chicago, April 12-15.

Plant Maintenance and Engineering Show, Public Auditorium, Cleveland, Jan. 26-29, 1959.

Society of Cosmetic Chemists, annual meeting, Statler Hotel, New York, Nov. 20.

Synthetic Organic Chemical Manufacturers Association, monthly luncheons, Roosevelt Hotel, New York, Nov. 12; and Jan. 13, Feb. 10, March 11, 1959; annual meeting, Dec. 3, 1958.

Toilet Goods Association, scientific section, Waldorf-Astoria Hotel, New York, Dec. 8; 24th annual convention, Waldorf-Astoria, New York, May 12-14.

Western Packaging & Materials Handling Exposition, Civic Auditorium, San Francisco, Aug. 11, 12 & 13.

Index to ADVERTISERS

Tale Ends

HERBERT O. Eversmann, the "aerosol man's banker," died at his home in Baldwin, N. Y. on September 26. Mr. Eversmann, an executive vice-president of the Bank of New York with which institution he had been associated since 1920, was widely known in the aerosol field because of his banking relations with aerosol fillers and marketers. He was in charge of all commercial loans and credit operations of the Bank of New York at the time of his death.

* * * * *

The proceedings which have for some years been published by the Soap Association reporting the annual meetings will be discontinued. At a recent meeting of the Board of the Association, it was voted to cease publication at once. Apparently the expense involved was not considered warranted. In this we agree. In the past, we have always published all important papers delivered before AASGP meetings. We stand ready and willing to continue and expand this practice if it is necessary in the future.

* * * * *

Shampooing the hair with ordinary household detergent is apparently not an uncommon practice in bonnie Scotland. The chemical detectives of Glasgow discovered this fact in an unusual manner. Hair samples of women co-workers showed an unusually high content of arsenic. This led to a testing of eight household detergents. Two showed relatively high arsenic. A further check unearthed the fact that these two had been sulphated with sulfuric acid made from pyrites which invariably contains arsenic. A switch to arsenic-free contact acid did the trick, but didn't explain why the ladies shampooed with household detergent. It happened in Scotland. Maybe that's the explanation.

* * * * *

Milton H. Biow, well known character in American advertising and publicity who quit the business a couple of years ago,—he is now serving with the President's Committee on Government Employment Policy,—recently had a few uncomplimentary things to say about the advertising business and the agencies. But he ended his remarks with the following: "To recognize good advertising is an incentive to produce it—that's the way Procter & Gamble gets a good job from its agencies."

* * * * *

Dr. D. H. Killeffer, well-known public relations consultant for a number of our largest chemical companies over the past forty years, has finally given up the ghost on the ice and snow of the northland. He moved his headquarters from Tuckahoe, N.Y., and the Chemists Club in N.Y., to 1033 Mohawk Drive, Clearwater, Florida, on November 1. Always a prolific writer, he is the author of many books and articles in the scientific and lay press. He pioneered science on radio 35 years ago. He abandoned the chemical laboratory over 40 years ago to become an editor of the old weekly, "Drug & Chemical Markets," of which "Chemical Week" is the present-day successor. Now, he's moved to the land of sunshine!

* * * * *

Leon W. Miller, director of chemical sales for the plastics and coal chemicals division of Allied Chemical Corp., New York, is the new chairman of the Drug, Chemical & Allied Trades (better known as DCAT) membership committee. He is now in the midst of putting on a big drive to boost DCAT membership above its present 400 firms, mostly in and around N. Y. If you're in or near N. Y. and Leon hasn't gotten around to you yet, don't worry. He will.

* * * * *

A Czech soapmaker has been put in the cooler for 20 years for manufacturing hard-to-get soap and toothpaste, according to Radio Prague. After a two-week trial, one Bohuslav Zeithammer was convicted of damaging Czechoslovakia's state-run economy by engaging in "illegal private enterprise." Until the 65 year old Zeithammer was caught, he did pretty well. If he had declared his income over the past four years, he would have been liable for a tax in excess of $300,000. So, good friends, private enterprise ain't all it's cracked up to be.

* * * * *

A self-lathering shaving brush for attachment to pressurized shaving cream containers! Not that it's on the market yet, but a fellow named Max Oeser down in Birmingham, Ala., we understand, has filed for a patent for such a gadget. Anybody who is interested can contact the gentleman at 436 Third St., West. Next in line, we imagine will be an aerosol with an attached brush and razor and which plays Annie Laurie softly while in use.

* * * * *

Flies not disease carriers? That's what a University of Illinois scientist says. The house fly has the peculiar ability to shed most of the disease causing germs it lived with at birth the researcher stated, according to an Associated Press dispatch of recent date carrying a Bloomington Ind., dateline. Because of this, the newspaper report says, the importance of disease-carrying by flies born in refuse and other dangerous bacteria havens is probably slight.

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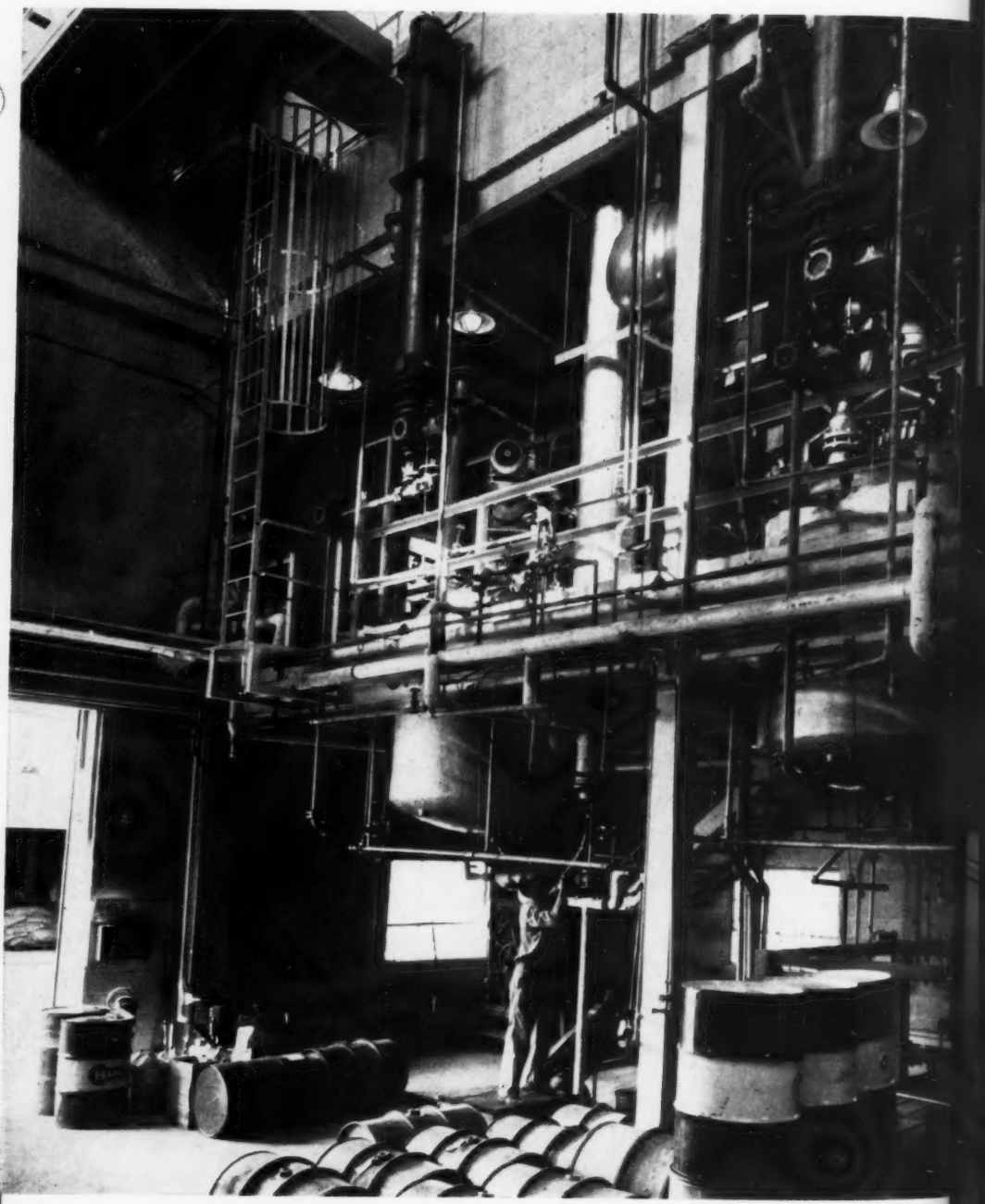

Two new chemical reactors, typical of the up-to-date equipment used at the VAH factory at Union Beach, N. J. Here aromatic materials of both natural and synthetic origin go through one of many production steps involved in producing close to 2000 fragrance materials manufactured by VAH.

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